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ABSTRACT

In response to the growth and diversification of adventure programming, the Association for Experiential Education developed an accreditation process that addresses both the fluid nature of adventure programming and the need for specificity in standards. This book describes exemplary administrative practices and policies of accredited adventure programs. Chapter 1 addresses philosophical, educational, and ethical concerns, including mission statements, program principles, environmental ethics, leave-no-trace practices, and access for clients with disabilities. Chapter 2 examines risk management planning and related employee training. Areas covered include health risk assessment, emergency situations, liability, transportation, licenses and permits, and accident guidelines. Sample forms include incident and accident reports; missing/damaged equipment report; leader evaluations of students, biking trips, and leadership training; and hiking route plans. Chapters 3-4 cover staffing certifications and requirements, employment policies and procedures, personnel policies and procedures, and transportation policies. Chapters 5-6 describe technical skills needed by leaders and recommended instructional strategies for various land and water activities: hiking, ropes/challenge courses and problem-solving exercises, orienteering, biking, climbing and rappelling, caving, river crossing, mountaineering, solos, canoeing, and kayaking. The final chapters address service projects, international travel, technology in the wilderness, and third-party contractor agreements. (SV)

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ADMINISTRATIVE PRACTICES

OF ACCREDITED

ADVENTURE PROGRAMS

ASSOCIATION FOR EXPERIENTIAL EDUCATION, COUNCIL OF ACCREDITATION

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FOREWORD:

A Primer on Using This Book and Its Purpose

The field of adventure programming has undergone many dramatic and rapid changes over the past 50 years. Some indicators of this growth include:

- the exponential increase in programs using adventure programming
- new and rapidly evolving applications of adventure programming to specific populations
- greater increase and acceptance of adventure programming as a medium for producing functional change for different populations
- an increase in the number of professional organizations associated with adventure programming
- an increase in artificially constructed adventure environments for programming (e.g., artificial climbing walls, challenge courses)
- an increase in the level of research and program evaluation demonstrating the effectiveness of adventure programming with a variety of applications

What has been interesting to observe with this growth is that several factors, some related to this growth and some quite independent of this expansion, have arisen to become potential obstacles to future growth, acceptance, and even continuance of such efforts. Some of these factors include:

- an increasingly litigious society
- a better educated insurance industry
- limited access to insurance coverage (e.g., in the Spring of 1997, Markel Insurance Company's decision to not renew insurance policies of stand-alone ropes/adventure courses)
- increasing government regulation concerning access and use of natural resources (e.g., Joshua Tree and Red Rocks National Parks)
- decreasing levels of federal, state, and provincial funding to support the sustenance and protection of natural environments
- establishment of or an increase in fees to use wilderness areas
- increasing levels of technological advances and their influences on programming as well as client expectations (e.g., cell phones, global positioning systems, more advanced extrication systems used in rescues)
- the development of external "watchdog" groups (e.g., Michelle Sutton Memorial Fund Inc., which addresses inappropriate practices of wilderness therapy camps).

As one can view from the growth indicators and intersecting factors outlined above, the adventure programming industry is distinctly different than what it was 15 years ago, let alone when Outward Bound first appeared in North America in 1962 and when the Association for Experiential Education was established in 1972!

In an effort to try to enhance the level of professionalism as well as achieve an ability for self-governance or input into decisions made as a result of these changes, the Association of Experiential Education has established the concept of Program Accreditation. Evolving out of a number of external sources (e.g., Wade, 1983; Wade & Fischesser, 1988) as well as through several internal documents (Johanson 1984, 1985, 1987; Priest & Dixon, 1990), accreditation has evolved into a method for programs to provide greater benefits for their organizations and clients. Some of the targeted benefits for accrediting programs include:

- achieving an appropriate standard of care without losing the flexibility to decide how standards can be met
- stimulating an internal learning process within the organization to enhance risk management and program quality efforts
- receiving an external and objective perspective on program operations and risk management
- providing program participants with a level of quality assurance
- providing a marketing tool for attracting clients
- providing external regulating agencies (e.g., federal and state governments) with a level of quality assurance
- receiving access to natural resources and programming areas where external agencies have required accreditation as a stipulation for programming
- providing insurance providers with a level of quality assurance
- receiving discounts on insurance premiums where providers have decided to use accreditation as a method for determining such discounts
- becoming associated with programs that have made a commitment to hold themselves out to the greater community as possessing standards valued by the field

These benefits are probably best summarized in the following statement from the Program Accreditation Manual:

> *The Accreditation Program is especially important at this time when society needs the type of experiences an adventure program can provide—experiences that are a vital component in the personal enhancement of individuals. Rather than participants (and potential participants) being dominated by fear of an inappropriate perception of risk, the Accreditation Program can engender a greater confidence in the quality of adventure experiences as these activities relate to participant welfare and safety (Williamson & Gass, 1993, p. 1).*

The fluid nature of adventure programming and the need for specificity in standards: How Accreditation achieves the process of matching this reality

In our work as a Council, we have often heard the following comment as programs (as well as users and regulating agencies) review the Accreditation Standards: "What does the word 'appropriate' or 'adequate' mean?; it doesn't tell me exactly what and how I have to do programming to achieve the standard."

Within the question lies the very essence of why and how the accreditation process has been constructed. The adventure programming field, by its very nature and application, is extremely fluid and diverse. While there are certain standards that will vary little between adventure programs and environment, there are other standards that will vary a great deal given the diversity of adventure programs and the environmental settings where they occur. The use of terms such as "appropriate" and "adequate" allow for such general terminology, which can be applied specifically once such factors are established. The following discussion, matrix and narrative around how the terms "appropriate" and "adequate" are offered as a way to illustrate how both the accreditation process can be flexible enough to accommodate the fluid nature of adventure programming, but specifically applied once such factors are established.

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The American Heritage Dictionary (1981, p. 64) defines "appropriate" as, "Suitable for a particular person, condition, occasion, or place; proper; fitting." Synonyms for appropriate include: desired, fitting, proper, applicable, requisite, just, suitable. "Adequate" is simply defined as, "Able to satisfy a requirement; suitable." (AEE does not consider the second definition, "Barely satisfactory or sufficient," as the desirable one.)

"Appropriate" also refers to what a reasonable and prudent professional would do. Programs and practitioners are all judged, ultimately, by a jury of peers, whether it is through word-of-mouth, accreditation, or, in the worst case, litigation. Another way to look at it would be to consider if such a jury were to provide a critique of your program, would it be a clear affirmation that you engage in safe, quality, ethically sound, and environmentally correct practices? Put yet another way, if you were one of your participants, would you have benefited from the set of experiences being provided by your program?

There are four basic interactive variables that can be formed into a matrix that will determine what is "appropriate" in any given category.

1. *Kind of Environment*—This includes both physical locations (mountain, river, lake, desert, school grounds) and legal requirements (park service, state parks, private property, institution). Among the physical variables are weather, distances from the roadhead, and difficulty of terrain.
2. *Kind of Activity*—These include activities found under the Technical Skills chapters in the Manual of Accreditation Standards for Adventure Programs.
3. *Level of Technical Expertise*—An assumption here is that a group (team, patrol, watch, crew, class, etc.) consists of 15 participants or fewer. Exceptions to this include large group "ice breakers," etc., such as are found at conferences.
4. *Profile of Participants*—This is determined by age, gender, physical and mental abilities, and psychological, social, and cultural backgrounds.

Following are three examples of putting the matrix into practice. Let the assumption on "kind of environment" be that initiative exercises, low-ropes elements, and high-ropes elements are available and that one of the questions is what an appropriate staff-to-participant ratio ought to be.

Type of Group	Physical Environment	Activity Type	Technical Expertise	Participant Profile
Athletic Team	Challenge course; urban area	Entire Course; high degree of client investment in physical tasks	1:15, Team-building facilitator	High level of physical capability; team-building focus
Corporate Group	Challenge course; urban area	Initiatives/low elements; targeted involvement in high elements	3:15, Corporate training facilitator	Some limits to "physical" nature of certain activities (e.g., high elements); corporate team-building focus
Therapeutic Group	Challenge course; urban area	Selected initiatives and challenge course elements based on needs	3+:15 Therapist facilitator	Contraindications to certain experiences (e.g., spotting); therapeutic focus

First Example

You have an intact team of college students, members of a varsity athletic team, who have come to your program for one day to engage in activities that will help enhance their ability to work together.

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Applying the Matrix

1. *Environment*—As stated on previous page.
2. *Activities*—This group could engage in the most challenging high ropes element by the end of the day.
3. *Level of Technical Expertise*—The appropriate instructor-to-participant ratio could go as high as 1:15. The skills required would be knowledge of how to manage all aspects of initiatives, low-and high-ropes elements; and how to facilitate groups in relation to team building.
4. *Participant Profile*—This group, once briefly instructed, can be given a high degree of responsibility for such aspects as spotting and belaying.

Second Example

You have an intact team comprised of 30- to 50-year-old corporate executives who have a wide range of physical profiles. (One recently won a 10K road race, one has a pre-existing heart condition, two are overweight). They are all quick to grasp concepts, and the reason they are attending your one-day program is to enhance their ability to work in teams and to regain a sense of self-confidence.

Applying the Matrix

1. *Environment*—As stated above.
2. *Activities*—This group would be brought through warm-ups, spotting, and initiatives with low physical stress. Not all participants would necessarily go through low elements and perhaps one or two could attempt high elements.
3. *Level of Technical Expertise*—The appropriate instructor:participant ratio could go as high as 2:15. The skills required would be knowledge of how to assess participants' strength, agility, coordination, and stamina; and how to make on-the-spot adjustments to activities based on that information. Instructors would need to know how to manage all aspects of initiatives, as well as low- and high-ropes elements. Instructors would need to have a basic understanding of corporate culture and of how to facilitate adult groups in relation to team-building.
4. *Participant Profile*—This group, once briefly instructed, can be given a moderate degree of responsibility for such aspects as spotting and belaying. Elements chosen would be based on the assessment of the level of physical capability.

Third Example

You have a group that is not intact, composed of 30- to 40-year-old sedentary individuals with histories of sexual abuse and suicidal ideation. They have low self-esteem, but are intelligent. They are focused on enabling others rather than helping themselves. They are participating in a day of initiative and ropes course elements as an adjunct to their therapeutic program, which is designed to help them recognize which of their personality characteristics are not working, and to identify some that will be of value.

Applying the Matrix

1. *Environment*—As stated above.
2. *Activities*—This group would be brought through warm-ups, spotting, and initiatives involving low physical stress. No more than one or two activities might be accomplished, and the more physically challenging elements would not be used.

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3. *Level of Technical Expertise*—The appropriate instructor:participant ratio would go as high as 2:15, with technical staff available for support. The skills required would be a) knowing how to assess participants' strength, agility, coordination, and stamina, and how to make on-the-spot adjustments to activities based on that information; b) knowing when to intervene; and c) knowing how to relate what is happening with the individual participant's profile. Instructors would need to know the basics of how to manage initiatives and low-ropes elements. Instructors would need to have training and practice in counseling and therapy techniques.

4. *Participant Profile*—This group can be given only a small degree of responsibility for such aspects as spotting. Elements chosen would be based on the assessment of how each individual is functioning as well as the level of physical capability of each individual.

Final Thoughts on the Matrix

It should be apparent that "appropriate" and "adequate" will mean different things according to the matrix encountered. Eliminating the words from the Manual of Accreditation Standards for Adventure Programs would require an attempt to anticipate each and every case that programs might present. This would be neither possible nor productive. Therefore, reviewers will look first and foremost to determine whether your program has focused on the matrix and has created an approach based on it. This will answer the question of whether your particular practices are "appropriate" and "adequate."

Think about it: How programs should use this book and how it should NOT be used

As the Accreditation Program and associated processes have developed, three critical features have emerged. One is a beneficial "by product" of the accreditation review process: There are a number of exemplary practices that are occurring in the field that become evident in review process and their efforts are much too valuable for the field to stay contained just in the review process. The programs represented here—the Biking Expedition, Boojum Institute, Camp High Rocks, Camp Woodson, Hurricane Island Outward Bound School (HIOBS), Joy Outdoor Education Center, Merrowvista Education Center, the National Outdoor Leadership School (NOLS), Pacific Crest Outward Bound School (PCOBS), Prescott College, the University of Alaska at Anchorage Wilderness Program, the University of New Hampshire, the Venture Program at the University of North Carolina—often represent the best of what we are currently doing in the adventure programming field. Reproducing their efforts under one source can only add depth and quality to the field as a whole.

The second is a realization that many accredited programs center their policies, procedures, and other administrative practices around the work of certain pivotal resources in the field. Several organizations that serve as rich sources of information have graciously allowed AEE to reproduce some of their materials here. Most notable of these organizations are the American Alpine Club (AAC), Leave No Trace (LNT) Organization, the Climbing Gym Association (CGA) of the Outdoor Recreation Coalition of America (ORCA), Stonehearth Outdoor Learning Opportunities (SOLO), Wilderness Medical Associates (WMA), the Wilderness Risk Managers Conference Proceedings (of which the AEE is a contributing member), and the Worldwide Outfitter and Guide Association (WOGA). Interested professionals would be served well to closely examine these sources of information and professional support.

The third is a risky paradox for programs entering the Accreditation process. In many ways this book is almost like a "Pandora's box" of sorts. Once opened, its contents can be extremely valuable in the right hands. The information provided in this book can be incredibly valuable for programs to perform an "internal audit" on how their program meets a standard for procedures, operations, policies, etc., when compared with another. As illustrated in the matrix narrative discussed earlier, it is important to remember that there generally is no one "correct procedure" for every situation, but several specific procedures that will work once several variables are determined. Also, as new programs

develop or as current programs add on new programming features, the creation and "start-up" features contained in this book will provide an invaluable source of information.

However, it also could be extremely destructive if used for the wrong purposes. Two of the most important outcomes of the accreditation process are the self-examination organizations must go through when undergoing AEE accreditation and the tremendous amount of learning each organization must do as it proceeds ahead with accreditation. It is quite tempting for programs to "cut and paste" existing policies/procedures to "save time," with little regard as to how they will actually address the specific needs of the program. One can imagine the disastrous effect of implementing one set of procedures in the matrix with another population. Not only would this have serious implications regarding risk management, but also negative implications for programming and the ethics on conducting adventure experiences in such a contradictory manner! Programs must be sensitive to the fact that there are some real and long-term benefits to the process of developing policies and procedures for each organization beyond the short-term efforts to get a set of policies and procedures in place.

I welcome you to a rich resource of efforts by several programs that are to be commended for their excellence in programming as well as their willingness to share in the truest form of professional service. Best of luck in your efforts to further your participation in adventure programming.

Dr. Michael Gass, Chair
AEE Program Accreditation Council
September 23, 1997

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Also included in this book is the work of several leading organizations in the adventure programming field that have graciously allowed AEE to reproduce some of their materials here. These organizations include the American Alpine Club (AAC), Leave No Trace (LNT) Organization, the Climbing Gym Association (CGA) of the Outdoor Recreation Coalition of America (ORCA), Stonehearth Outdoor Learning Opportunities (SOLO), Wilderness Medical Associates (WMA), the Worldwide Outfitter and Guide Association (WOGA), and the Wilderness Risk Managers Conference Proceedings (of which the AEE is a contributing member). Without their professional endeavors and unselfish efforts, this book would not be nearly as valuable.

At the AEE Office, the hard work of Sky Gray and Bill Zimmerman has been a valuable asset to the Accreditation Program. Their contributions have been critical to this emerging process.

Finally, the efforts of Carrie Sharp have been instrumental in producing this book. Without her tireless interactions with programs and organizational abilities this book would not exist. Efforts like hers are ones that we should all seek to emulate: a person who serves takes care to make sure that other people's highest priority needs are being served and that those people, while being served, will be more likely themselves to become servants. As Chair of the Accreditation Council, I thank her for the effort and manner her service to this project was offered in.

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BIBLIOGRAPHIES

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Jed Williamson is currently President of Sterling College in Craftsbury Common, Vermont, USA. Jed has been a master practitioner and consultant in education and outdoor pursuits for many years. He is probably best known as the editor of *Accidents in North American Mountaineering*, a service he has performed since 1974. He is also immediate Past President of the American Alpine Club, and Chair of its Safety Committee, as well as a National Outdoor Leadership School trustee. His past positions include: Executive Director of the United States Biathalon Association (and a former member of the team), and a faculty member of the University of New Hampshire, where he designed and directed the experiential teacher education program, "Live, Learn, and Teach." Jed's avocations are skiing and climbing, which he has done for over thirty-five years. His expeditions have included Mount McKinley, the Northern Selkirks, the Coast Range, a traverse of the Brooks Range, Pik Lenin, the Labarador Coast, Mexico's Barranca del Cobre, Minya Konka, and Mount Everest from the Tibetan side.

CHAPTER I

Philosophical, Educational and Ethical Concerns

MANAGEMENT AND OPERATIONS

Boojum Institute for Experiential Education

Boojum's Mission

Boojum is a non-profit organization whose mission is to promote self-discovery, constructive interaction with others, and a deeper understanding of nature through experiential, adventure, and environmental education.

Our educational philosophy emphasizes the use of experiential education. We provide participants with outdoor learning experiences that are processed allowing time for reflection; then they are analyzed and synthesized.

The experiences provided are designed to challenge the individual and group as a whole physically, emotionally, and intellectually.

We believe that risk taking is inherent to the experiential learning process. Using the natural world as a classroom affords us many opportunities to expand the participant's life experiences and encourages personal growth. Support, trust and respect are valued and promoted throughout all phases of instruction, management, and administration.

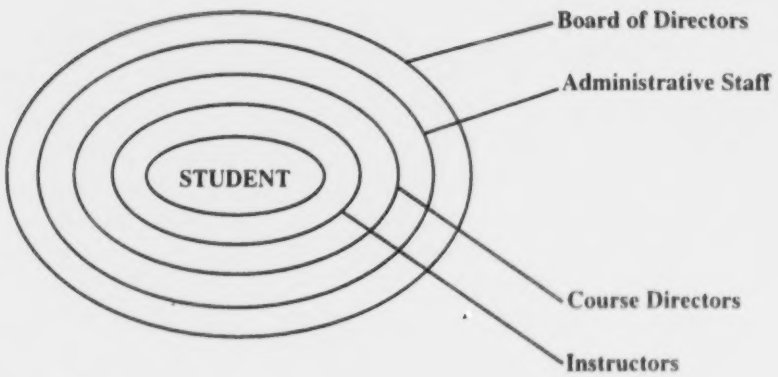
Our environmental ethics are such that we enter into all of our course areas as visitors and leave no trace. We strongly believe in teaching minimum impact skills that are used throughout all of our courses.

It is Boojum's goal to take participants into new environments and:

- Introduce participants to a new environment and foster an appreciation for the natural world.
- Challenge individuals through use of physical and mental activities.
- Promote good communication skills that can be transferred to participants' everyday life.
- Teach constructive interaction with others through the use of role modeling and activities.
- Enhance self-esteem and confidence through use of individual focused activities.
- Foster responsibility through individual- and group-based activities.

OVERVIEW OF ADMINISTRATION AND MANAGEMENT

We consider the students to be the reason for our mission statement and it makes sense to put them at the center of our focus. With this in mind we like to think of our organizational structure in a concentric circle model. Each layer supports the layers surrounding itself, and the focus of all layers is the student.



The Institute is run with an inclusive management style, and you are encouraged to offer your opinions and suggestions. The Executive Director is responsible for gathering all facts, figures, and opinions, and for making the final decisions relative to the daily operations. The Executive Director works closely with and is guided by the Board of Directors regarding Boojum's policy, direction, and goals.

ORGANIZATIONAL STRUCTURE

Boojum is a non-profit, charitable organization 501(c)(3). The bottom line is measured by whether we fulfill our mission statement, and it is implied that a company needs to realize a profit to remain healthy and viable.

Boojum has been predominately a tuition-funded company since its origin. Our continued success is due to word-of-mouth advertising among client schools and the more recent help of an on-site marketing company. Over the last several years, we have also received contributions from private foundations to provide programs for financially underprivileged young adults. Boojum continues to seek grants and donations to provide programming for children, young adults, and adults who do not have the financial means to attend our courses.

To increase our sales, Boojum entered into a relationship with a marketing company called OUT THERE Inc. in 1994. Their primary service is to promote Boojum's courses and to represent Boojum in the marketplace in a manner that is consistent with Boojum's philosophy and mission. In addition to marketing services, OUT THERE Inc. also provides basic professional services (telephone answering, filing, contract preparation, etc.).

DESCRIPTION OF SERVICES

The Classic Program

Our primary clients are private schools, colleges, and special interest groups, from fifth grade student populations to adult administrators. Our seasons coincide with the school year: August through November being very busy; February through May being moderately busy; and June/July, December/January being somewhat slower.

Boojum course curricula include elements of Environmental Education, Outdoor Skills, and Team Building. All of our courses emphasize minimum impact camping and traveling techniques. Programs vary in duration from one-day ropes, rock climbing, and natural history day hikes to extended back-

packing courses; however, most last five days, Monday through Friday. Because each course is customized to fit the client's needs, it is fair to say there is not a "typical" Boojum course. Each course is conducted using one of four basic formats:

1. **Residential:** Utilizing several camps and lodges in Southern California, these courses involve students and staff spending their nights in dorms or cabins and eating cafeteria-style meals. Our "easiest" format, it is ideally suited to introducing students to mountain ecology. Our Mountain Introduction Program course areas include the San Bernardino and San Jacinto mountains and, occasionally, the Laguna Mountains and the Sierra Nevadas.

2. **Base Camp:** This involves multi-day tent camping in which students split into smaller groups for daily activities, and then return to a central camp each night. These courses offer students more "hands-on" time to focus on desert ecology and are conducted primarily in Joshua Tree National Park. We also occasionally use Death Valley National Park and Anza Borrego Desert State Park and offer this format at many other locations based on client preference.

3. **Mobile:** This format allows the greatest degree of autonomy. Traveling through the backcountry provides a perfect opportunity for students to explore natural history and work on communication skills as expedition members. We offer flatwater canoeing, using the 30-mile stretch of the Colorado River below Hoover Dam (from Willow Beach to Cottonwood Cove) in Lake Mead National Recreation Area. Backpacking courses are offered in virtually all of our course areas except Lake Mead National Recreation Area.

4. **One-day Courses:** Boojum provides team-building and communication skills programs to clients throughout the year at our Ropes Course in Idyllwild and at other locations based on client preference. Boojum also provides "privately guided" natural history day hikes for individuals and small groups at the client's choice of location. We have occasionally conducted chaperone in-service programs and student team building courses on-site for our clients. Boojum offers a comprehensive selection of rock climbing courses and private guiding from beginner to advanced levels. These courses take place at Tahquitz and Suicide Rocks, near Idyllwild, California and in Joshua Tree National Park. They range in length from one to eight days.

The Uprising Program

These are grant-funded programs for high school students from socioeconomically challenged families. Uprising courses use the same formats as classic programs but focus on leadership development, cultural issues, and support issues. These programs occur as grants are received to fund them.

The Biking Expedition

Four Principles

We consider TBE to be a principle-centered organization. These principles guide all actions of our organization: in our office, amongst the staff, and in the field. Rather than merely giving a series of steadfast rules and "how-to's," we invest a tremendous amount of responsibility and autonomy in each leader to make decisions that are appropriate to the needs of each specific group. There are several steadfast policies (no drugs, alcohol, violence, etc.) and times when we require leaders to consult us before making final decisions. However, the great majority of the trip is spent away from TBE, where the leaders set the tone, establish structure, and make the great majority of decisions.

Below we have attempted to concisely relate the principles of the program. These principles should function as a compass to guide your actions as a leader. If you are unsure how you are doing as a leader, ask yourself, "Are my actions consistent with the intention of the four principles?"

TO CREATE A TIGHT-KNIT COMMUNITY.

To build a safe, supportive, accepting, cooperative, and open atmosphere that encourages trust, builds friendships and enables each person to feel comfortable.

TO BUILD SELF-CONFIDENCE.

We want to help our participants successfully overcome challenges. To consistently show people that we are much more than we thought we were. We try to look at each student in terms of his/her potential rather than his/her behavior. Goethe put it this way: "Treat a man (person) as he is, and he will remain as he is; treat a man as he can and should be, and he will become as he can and should be."

TO LIVE LIFE TO THE FULLEST!

To create a celebratory "festival" atmosphere where we maximize fun, play, and discovery. As Shirley Maclaine says, "Life is not a dress rehearsal." Seek out the special activities, play as many games as humanly possible, go nuts with delicious food, and create joy out of even the most mundane tasks.

ANYONE CAN DO IT!

We believe that every student can succeed on a TBE trip if they have a positive attitude and a willingness to work together with others to create a supportive and fun-loving group environment. By encouraging the group to think positively and by helping individuals to reach out to each other, we can assure every student a successful experience.

PROGRAM ETHICS

University of New Hampshire

Ethical Guidelines for our Programs

The areas of ethical concern for the UNH Corporate Program focus on the following six areas:

1. **Professional competence**
   a. Provide services only within the boundaries of their competence, based on their education, training, supervision, experience, and practice.
   b. Take reasonable steps to ensure the competence of their work and promote clients' welfare as participants.
   c. Avoid situations where personal problems or conflicts may impair their work performance or judgement.
   d. Stay abreast of current information in the field and participate in ongoing professional efforts to maintain their knowledge, practice, and skills.
2. **Professional integrity**
   a. Promote integrity in the practice of adventure programming. In these experiences, be honest, fair, and respectful during client interactions as well as during other interaction with other professionals.
   b. Statements are not made that are false, misleading, or deceptive when describing or reporting their qualifications, services, products, or fees.
   c. Strive to be aware of their own belief systems, values, needs, limitations, and the effect of these on their work with clients.
3. **Professional responsibility**
   a. Clarify roles and obligations.
   b. Accept responsibility for their behavior and decisions.
   c. Adapt methods to the needs of different populations.
   d. Have an adequate basis for their professional judgements.
   e. Do not begin services with clients where the constraints of limited contact will not benefit their needs.
   f. Continue services only so long as it is reasonably clear that clients will benefit from their services.
   g. Conduct adventure experiences in a manner that has minimal impact on the environment (e.g., no permanent damage to wilderness environments will occur as a result of programming).
4. **Respect for people's rights and dignity**
   a. Respect the fundamental rights, dignity, and worth of all people.

b. Respect clients' right to privacy, confidentiality, and self-determination within the limits of the law.

c. Strive to be sensitive to cultural and individual differences—including those due to age, gender, race, ethnicity, national origin, religion, sexual orientation, disability, and socioeconomic status.

d. Do not engage in sexual or other harassment or exploitation of participants.

e. Respect clients' rights to make decisions, and help them understand the consequences of their choices.

f. Provide clients with appropriate information about the nature of services, their rights, the actual risks of activity, and responsibilities of the provider.

g. Provide the opportunity to discuss the results, interpretations, and conclusions or programming with clients.

h. Respect clients' rights to refuse or consent to services and activities.

i. Obtain informed consent from clients to participate of their own free will.

j. Charge appropriate fees for services, where these fees are disclosed to clients prior to or at the beginning of the program and are truthfully represented.

5. Concern for welfare

a. Be sensitive to client needs and welfare. Also be sensitive to "subordinates" (e.g., people in positions of lesser "power" like students, people shadowing training experiences).

b. Avoid exploiting or misleading client as well as others. This includes avoiding dual relationships with participants that could impair their professional judgement (e.g., sexual relationships, inappropriate physical contact).

c. Provide for the physical needs of clients (e.g., necessary water, nutrition, clothing, shelter, rest, or other essential needs), and monitor the appropriate use of emotional and physical risk in adventure experiences.

d. Assist clients in obtaining other services if the program cannot, for appropriate reasons, provide the professional help the client needs.

e. Do not stop services without making reasonable attempts to arrange for the continuation of such services (e.g., referrals).

f. Plan experiences with the intent that decisions made during and after the experience are in accordance with the clients' best interests.

g. Respect clients' rights to decide the extent to which confidential material can be made public, except under extreme conditions (e.g., when required by law, to prevent a clear and immediate danger to a person or persons, if permission has previously been obtained in writing).

6. Social responsibility

a. Be aware of their professional responsibilities to the community and society in which they work and live.

b. Avoid the misuse of their work.

c. Comply with the particular laws in their particular geographical and professional area.

d. Encourage the development of standards and policies that serve their clients' interests as well as those of the public.

ENVIRONMENTAL CONCERNS

Leave No Trace

Outdoor Skills & Ethics

All Leave No Trace *information courtesy of Amy Mentuck,*
Leave No Trace, Inc. PO Box 994, Boulder, CO 80306
(800) 332-4100/http://www.lnt.org

AN OUTDOOR ETHIC

More and more people are taking to trails, rivers, and byways to discover North America. On foot or horseback, on mountain bikes or by boat, there are vast expanses to be explored on federal, state, and privately owned lands. This increased use is not without problems, however. Many popular areas are now crowded and show signs of damage to vegetation, soil, water, and wildlife habitat.

We seek these areas for solitude, adventure, or a "wilderness experience" to get away from the crowds, noise, and daily pressures of urban life. In order to protect and maintain the health of these areas for the future, we must use them with care. This booklet describes techniques you can use to reduce the evidence of your visit and minimize disturbance to the local ecology. By utilizing these LEAVE NO TRACE guidelines, you can enjoy natural areas and preserve their beauty and the freedom and solitude they offer.

Principles

There are six basic LEAVE NO TRACE principles you should keep in mind wherever you travel. They will help you protect the land and enjoy your surroundings, whether you're visiting a small picnic area or a vast wilderness. They are:

- Plan Ahead and Prepare
- Camp and Travel on Durable Surfaces
- Pack It In, Pack It Out
- Properly Dispose of What You Can't Pack Out
- Leave What You Find
- Minimize Use and Impact Of Fires

PLAN AHEAD AND PREPARE

Planning ahead will help make your outing safer and more fun. Consider the size of your group, the type of place you want to go, and your equipment and food needs. Some areas are closed to pack animals, mountain bikes, or pets, due to overuse or fragile environments. There may be specific requirements for stock regarding feed and restraining methods. Land management offices, such as those representing federal, state, or provincial forests and parks, or local clubs and sporting goods shops can provide current maps and information on trails, water levels, camping, weather conditions, regulations, and other helpful information. They may also be able to recommend a good area to explore!

Group Size

Six people or fewer is best! If you must plan for more people, consider splitting up into groups of three to six during the day. Choose a campsite that's large enough for everyone so you don't trample tree seedlings or plants at the campsite's edge. Check ahead to learn if there is a group size limit in the area you plan to visit.

When and Where to Go

To maximize your feeling of privacy, avoid trips on holidays and busy weekends, or take your trips during the off-season.

What's Needed and What's Not

Use a lightweight camp stove for cooking. Build fires *only* if there is plenty of wood, the surroundings can quickly replenish the wood you burn, and if fires are not prohibited.

Brightly colored clothing and equipment can be seen for long distances. Choose earth-toned colors to lessen visual impact.

Remove food from breakable jars or bulky packaging and place it in plastic bags and containers. Check if local restrictions prohibit cans and bottles. *If you pack it in, pack it out!*

A small trowel or plastic garden shovel is handy for burying human waste when there are no toilets. Plastic water jugs lessen the number of trips needed to get water. A water filter, iodine, or chlorine tablets will help you avoid water-borne diseases that may be present. Boiling also works, but requires extra fuel. If traveling by horse, a saw or axe is handy to remove deadfall from the trail. Otherwise, leave saws and axes at home, as good firewood can be collected from the ground and broken by hand.

On any outing, carry extra trash bags to pick up litter found on the trail or at your campsite.

Be Prepared

Obtain a good map, plan your route, and leave your itinerary with a friend at home. Know what weather conditions to expect, and come prepared for the worst. Always carry survival gear: food, water, warm clothing, and shelter from the wet/cold. A signal mirror, whistle, or fluorescent vest will help others find you if you become lost. Carry extra water in desert areas. Take responsibility for your own safety, and be prepared to rescue yourself from tough situations.

CAMP AND TRAVEL ON DURABLE SURFACES

Trail Travel

Trails provide a pathway for walking and riding and are designed to drain water with a minimum amount of soil erosion. Whenever available, utilize existing trails.

Cutting switchbacks or going around puddles, water bars, and stream-fording sites causes erosion and creates unsightly scars. Sturdy boots and gaiters protect feet from mud and water and make it easier to stay on the trail even in wet conditions.

Cross Country Travel

If you travel off-trail, move carefully, and stay on durable ground, each person taking a slightly different route. This will help prevent creating new paths that might attract others.

Durable surfaces include rock, sand, forest leaf litter, or dry grass. Avoid traveling through wet meadows, over leafy plants, or on desert "cryptogam" (black, crusty soil), which are all fragile and show signs of footprints or hoofprints for a long time.

Bicycles and motorized vehicles are allowed on designated trails and roads. Cross-country riding creates unnecessary new trails and causes erosion. Bikes and motor vehicles are not permitted in designated wilderness areas.

Ribbons, signs, cairns, and blazed trees marking paths detract from the naturalness of an area. If you mark a route while hunting, remove markers as you depart.

Water Travel

A boat on the water leaves no trace but can cause damage at landing sites. Choose a sandy, rocky, or established landing site, below high water if possible. Avoid tide pools, coral reefs, or sites rich in wildlife when pulling boats ashore.

Camping

Designated or established campsites lessen damage to surrounding vegetation by concentrating impacts in already disturbed or barren areas. Choose an established campsite that is at least 200 feet (70 m or 70+ adult steps) from water, meadows, and trails when possible. Local regulations may require more distance.

When there are no established sites, place your camp, especially the kitchen, on a durable surface 200 feet (70 m) from water and trails to minimize impact. Disperse your activities to avoid creating new paths to shelters, water, or equipment. Before leaving camp, disguise the site by replacing rocks as you found them and by scattering leaves, twigs, or rocks around the site.

Good campsites can be found on raised areas with a slight slope. These drain well, making trenching around tents unnecessary. Set your camp behind trees, rocks, or shrubs to give yourself and others more privacy. Beware of standing dead trees, avalanche areas, potential hazards from falling rocks, or flash-flood sites.

When traveling by boat, the most durable surfaces may be close to water and below the high-water line: Use these, when appropriate, being cautious of tides or changing water levels due to storms or dam releases.

In bear country, separate sleeping areas from food and cooking areas by 100 feet (30 m) or more. Food and strong odors attract bears. Store food and scented toiletries well off the ground (10-12 ft./3-4 m) or in approved storage containers.

Limit your stay to as few nights as possible to avoid accumulation of waste and garbage and injuring plants. This also makes it easier to LEAVE NO TRACE of your visit when you depart.

Camp and Travel with Pack Animals

Pack stock groups must be even more conscientious than others, as animals can cause considerable impact. The fewer animals taken, the less mark left on the land.

Select campsites can accommodate your animals without damage to the area. If the area is overgrazed, your stock may remove food otherwise needed by deer and elk during winter months. Water stock on a streambank that can withstand hard use. Loose herding for water causes substantial streambank damage. Avoid fragile lake shores and soft meadows.

Restraining Packstock

Hobbles, stakes (pickets), and hitchlines are good ways to restrain pack animals. Tying to can cause girdling and harm roots. In general, the less restraint, the less impact. Where allowed, let stock graze freely, using hobbles if they need to be constrained. Picket only enough stock to keep others from straying. A dominant animal such as an older mare is usually a good choice as a picket horse. Move stakes or picket pins frequently to prevent overgrazing.

If regulations require animals to be confined, use a highline or temporary corral built with rope, plastic snow fence and/or electric fence, or use a permanent corral if one is provided. Highlines need to be erected in rocky areas and on good stout trees above horse-head high. Protect bark by using wide straps or other devices such as "tree savers." Move animals before signs of grazing are obvious. Do not build new corrals of wood, as this damages trees.

Feed

Animal feed can cause impact, too. Use processed feed or certified hay to prevent the spread of noxious weeds. Supplemental feed can help prevent overgrazing around camp. Grazing is not allowed in some designated wilderness areas. In these places, bring enough feed for the entire trip.

Breaking Camp

Scatter manure piles when breaking camp to aid decomposition to discourage flies and to be courteous to other users. Fill areas dug up by animal hooves. Remove excess hay or other feed; it will not deteriorate and leaves an unsightly mess.

PACK IT IN, PACK IT OUT

If you plan your trip carefully, you will create very little trash. Never bury trash, because animals often dig it up. Collect all your trash, including cigarette butts or spent brass and shotgun shells, in a trash bag. Peanut shells, orange peels, and egg shells are also trash—they decompose slowly, create an eyesore, and attract insects or animals, which can be a nuisance or even a hazard to you and others. If you pack it in, pack it out!

PROPERLY DISPOSE OF WHAT YOU CAN'T PACK OUT

Washing and human waste disposal must be done carefully so the environment is not polluted, and animals and aquatic life are not injured. Water can be polluted with soaps (biodegradable or otherwise), food waste, or human waste. Toilet paper and other trash also create an eyesore.

Wash Water

If a cleaning station is provided, use it. If not, do all dishes, clothes washing, and personal washing at least 200 feet (70 m) from water sources and campsites. Use a cookpot or water jug to carry water to your wash site. For kitchen waste, collect food scraps in a plastic bag before washing. Hot water and a scrub pad clean well; if you use soap, small amounts are easier to rinse and dispose of. Strain gray water with a sieve or bandanna over a wide area, and carry out any remaining waste.

Swimming in lakes or streams is fine, but in desert areas, leave scarce water holes undisturbed and unpolluted so animals may drink from them.

Human Waste

If a toilet is available, use it. If not, urinate away from trails, camps, and sites where people gather. Feces should be kept from contact by people, animals, insects, and water. To assure this happens, put human waste in a "cathole." Choose a remote spot, and dig a shallow hole (4-8 in./10-20 cm) in topsoil. When finished, cover the hole with dirt and disguise it. Either carry out toilet paper in a plastic bag or bury it deeply so it is not dug up or left in the open. Dig catholes at least 200 feet (70 m) from camps, trails, water, and dry gullies. You may need to walk well over 200 (70 m) feet to ensure that catholes are well separated if you're in a popular area or if you stay more than one night at a site.

LEAVE WHAT YOU FIND

Historical and Archaeological Sites

Remnants of the past can be found on national, state, and private lands. Enjoy and learn from these sites, but remember that some of these are sacred to Native Americans or are important cultural reminders of our heritage. Respect these sites and treasures. Help preserve the past for the future: Do not disturb historical and archaeological sites or remove any objects from them. This is prohibited by federal law. Do not camp in or near these special features, as this can disturb valuable information that can never be reclaimed.

Protecting Wildlife and Plants

Good hunters and naturalists learn by quiet observation. Observe wildlife from a distance so they are not scared or forced to flee. If you're hunting, know your game, and take only safe, good shots.

Wildflowers, picturesque trees, and unusual rock formations all contribute to the natural beauty we enjoy and are best left undisturbed. If you pick berries or edible plants, pick only those that are abundant, and leave plenty for wildlife and next year's supply. There's no need to chop at trees or leave logs lashed to trees for use as tables, chairs, etc. Leave the land and its resources intact for the future.

Courtesy

One of the most important components of outdoor ethics is to maintain courtesy toward others. Excessive noise, unleashed pets, and damaged surroundings take away from everyone's experience.

Keep the noise level down while traveling. Many people come to the outdoors to listen to nature. If you bring a radio, tapes, or CDs, use headphones so you will not disturb others. Groups leading or riding livestock have the right-of-way on trails. Hikers and bicyclists should move off the trail to the downhill side. Talk quietly to the riders as they pass, since horses are spooked easily.

Stay in control when mountain biking. Before passing others, announce your presence, and proceed with caution.

Keep pets under control at all times. Please pick up dog feces from camps and trails. Some areas prohibit dogs or require them to be on a leash at all times.

Leave gates as you find them, and leave the land undisturbed for others to enjoy. Remember, our open spaces and wild lands are protected for all generations of North Americans. It is up to us to keep them healthy, beautiful, and open to the public for recreation, reflection, and revitalization!

MINIMIZE USE AND IMPACT OF FIRES

It is easier to LEAVE NO TRACE cooking on a stove rather than a campfire. Today's backpacking stoves are economical, lightweight, provide fast, clean cooking, and require little clean-up. In some heavily used areas, fires are not permitted. In fragile environments, such as deserts and alpine meadows, fires leave scars for many years and deplete slow-growing wood supplies. If you wish to build a fire, ask local land managers about fire restrictions or closures and whether a campfire permit is required in the area you plan to visit. Build fires only if they are allowed, if there is plenty of wood that will be replenished quickly, and if fire danger is low. When building fires, keep the following in mind:

Wood Gathering

Use only dead, downed wood. Green trees and branches won't burn, and standing dead snags provide animal habitat. Sawing trees and branches leaves ugly stumps and scars. Collect small sticks from the ground, wrist size or smaller, that can be broken by hand. These burn completely and provide good coals. The remaining white ash is easier to dispose of than partially burned logs. Never leave a fire unattended.

Fires in Existing Campsites

There are often existing campfire rings in established sites. Build your fire in a centrally located ring to concentrate use in one area and to lessen overall impact.

Fires in Pristine Areas

If no fire rings exist, a new ring is unnecessary. Fire rings do not prevent fires from spreading, and the blackened rocks are hard to conceal. Instead, build your fire in:

- A "fire pan" raised off the ground with rocks. Use a metal oil pan or lightweight barbecue grill, purchased at a discount outlet or auto parts store.
- Sand collected from a streambank or from beneath the roots of a downed tree, placed on a tarp for easy clean-up and formed into a 6 to 8 inch thick mound used as a fire platform.
- A fire pit dug in a dry streambed or below the high tide line.

Make sure the site is away from trees, shrubs, forest duff, or peat, as these can easily catch fire. Avoid building fires next to rocks, because smoke will blacken them.

Fire Clean-up

Always make sure your fire is dead out. In an established site, pick up any trash in or near the fire area. If the pit is filling with ash, collect and then scatter the cold ashes several hundred feet from the campsite. Leaving a clean, usable pit will encourage the next campers to use the same site.

If you used a fire pan, fire platform, or fire pit, you will need to scatter all the cold ashes well away from camp and replace any sand or rocks as you found them to LEAVE NO TRACE for others to see. If you are careful to remove all the ash from the sand, there will be little to no evidence of your fire. Naturalize the area with sticks, leaves or other materials to disguise the site.

UNIVERSAL ACCESS CONSIDERATIONS

University of New Hampshire

The Browne Center
The Universal Challenge Course:
ACCESSIBLE TO ALL

BACKGROUND INFORMATION

The Browne Center includes a fully accessible seminar building with indoor and outdoor bathroom facilities, the Universal Challenge Course, and the 103 acres on which they are located. The term *universal* was chosen to describe our commitment to creating programs designed to fully integrate persons from the entire spectrum of physical abilities. Calling the course *universal* connotes a level of equality of experience; challenges will not be the same, but they will be available to all participants. We have served participants with a variety of physical abilities and disabilities; people who are hearing and visually impaired; people with muscular dystrophy, multiple sclerosis, cerebral palsy; people who are fully able-bodied; and those who are quadriplegic. Some groups are composed of persons with disabilities, while others are integrated groups, consisting of people with disabilities and able-bodied people.

In 1987, 14 people who wanted to "do a good thing" ran the Falmouth Marathon with friend Danny Burke, a young man with quadriplegia who was interested in completing a marathon. The team raised $10,000, which became the seed money for the construction and development of the UNH Universal Challenge Course. The Browne Center was the first recipient of the charities from the foundation that has now become known as Danny's Team. Today Danny's Team continues to serve other organizations and individuals. Help has come from other places as well; since 1989, The Browne Center has served as Project Adventure's research and development site for universal challenge courses. They have contributed substantial design and installation expertise toward the development of the course, including $10,000 donated in October 1991. Thanks to these partnerships, we have three low and two high elements that were designed specifically to be universally accessible. We can also adapt existing elements, initiatives, and games to suit a broad range of physical abilities.

ADAPTING EXISTING ELEMENTS

Among the existing high elements that have been used by participants of varying physical abilities are the *Flying Squirrel* and the *Zip Wire*. In the case of the *Flying Squirrel*, the biggest challenge, in addition to creating a suitable harness for everyone, has been to work on a method of hoisting that is both safe and integrated. Because our course is in the woods, we have had to consider the terrain for people using wheelchairs and for others for whom mobility is a concern; this is especially important for the *Flying Squirrel* hoist. In addition, it has been important to place haulers who are not in chairs closest to the flyer, so that the rope is not out of reach for anyone.

The *Zip Wire* is a nicely adaptable element because the major obstacle, accessing the top of the element, can be resolved by using the counterweight system (described later). An instructor must be up on the platform to clip all climbers in, so there is less variation from the traditional use of the element;

however, an additional belayer may be needed to lower people from the element. In addition, consideration should be given to the grade of the zip, to decrease the amount of stress on the participant's body.

Alteration of framing and rules can allow for much greater accessibility on low course elements such as the *Spider's Web* and *Porthole*. Just as it is important to have an understanding of your participants' physical abilities, it is important not to make assumptions about them. Concentrating on abilities, not disabilities, will increase options for using a challenge course. For example, people may want to come out of their chairs in order to pass through the *Web*. Conversely, often times the chairs become wonderful problem-solving tools for people who don't regularly rely on them.

NEW HIGH ELEMENTS

The universal high elements have counter-weight systems, which allow for access by people with varied degrees of strength. A weighted pulley system attached to the climber provides the lift needed to reach the element. As the climber ascends, the weights slowly descend. Varying the amount of weight attached to the pulley creates appropriate challenges. Enough weight on the system allows the participant to essentially float slowly upward, while people with some degree of upper body strength, but no leg support, can climb with a percentage of their body weight on the pulley system.

One of the high elements first designed for this course is called the Horizontal Playpen, or the *Cargo Net*, which consists of boards, a cargo net, and tires placed at increasing distances from one another. Participants can traverse the element by crawling or walking (either of which can be facilitated by the counterweights), making this element accessible not only to persons without lower body strength, but also to those who have difficulty in balancing themselves.

The Trolley is the second universally designed high element; it consists of a wooden cart riding on two cables 25 feet in the air. A hand cable above allows some participants the option of controlling their ride; those with less mobility are guided into the trolley by someone positioned on the platform. A person at the other end of the cables is available to assist in the descent, creating an element that can potentially require almost no physical strength from the participant.

NEW LOW ELEMENTS

A *Nitro Crossing* has been installed with a traversing platform on a cable replacing the knotted rope on the traditional element. The weight of the platform necessitates a pulley system replacing the single point of attachment on the original *Nitro*. With the help of fellow participants, a person who uses a wheelchair might opt to come out of it to pass safely over the "peanut butter pit."

A universal *Teeter-Totter* offers the challenge of balancing group members (of course, under any variety of rules) on two large wooden platforms pivoting on a single point. Participants can board the teeter totter with or without wheelchairs.

The third low element that was built to serve as a universal addition to the course is called *Islands*. This element was built with the *Mohawk Walk* in mind and consists of a series of wooden platforms attached either by tracks, for wheelchair wheels, or simply by flat planks, allowing for varied degrees of risk. With this element in particular, it is important to keep in mind the tendency toward focusing on getting certain individuals "through." Framing or props such as blindfolds can be offered as a means of maintaining the personal challenge for all group members.

EQUIPMENT

A central issue in making universal challenge courses both safe and comfortable for participants has been the development of appropriate harnesses. To the best of our knowledge, there is no harness manufactured to suit the needs of a universal course. Variation in muscle tone and weight distribution make it difficult to create one harness that is unrestrictive and supportive for all participants. Therefore, we have used a combination of seat and chest harnesses for some people, while others needing additional support have used a Forbes seat with holes sewn in to accommodate a harness. A Forbes seat, often used in hospital settings, is a canvas chair with a tall back which allows for equal distribution of weight, and thus less pressure on the body. The harness has been useful for those who do not have the muscular control to keep their bodies upright, as well as for those for whom a waist belt would not be appropriate (e.g., pregnant women).

PROGRAMMATIC CONCERNS

In using the universal course, as with any challenge course, a willingness to be forthcoming about comfort levels is needed. This may be more important in the UCC than in other courses, and may require a willingness to be direct about physical limitations. Some disabilities are less visible than others. Before getting into an activity, it is important to have an understanding of the potential consequences. We have a lot of experience when it comes to working with fully able-bodied people, but doing adventure activities with people with disabilities requires facilitators to be frank about that which is unfamiliar.

Whereas during a traditional ropes course participants are asked to be frank when they are uncomfortable with an activity, facilitators working with integrated groups sometimes have to take it a step further. For example, if a group member has a condition with which a facilitator is unfamiliar, the facilitator might have to ask that individual to try spotting a few different ways or to try climbing with different harnesses in order to make the day successful. Medical name games are one way of setting the tone for open dialogue throughout the day. We make no assumptions, and therefore must ask questions. In order to keep the course truly universal and not focus on any specific population, the questions are necessary. The dialogue, in and of itself, is beneficial in educating ourselves and others.

In integrated groups, time has been an issue of concern; people with certain disabilities work in different timetables than people without disabilities. Bathroom breaks, for example, tend to take much longer with integrated groups. It has been our decision to go with the natural movement of the group and not to try to fill in the time. The decision has not been without its frustrations, but it has become part of our effort to learn more about one another. Starting new games while some participants are trying to get back to join the group seems to be cutting everyone short.

A final broad programmatic concern is the importance of designing the day in such a way that the focus does not naturally tend toward certain individuals because of physical constraints. This is a likely and crucial subject to be addressed during an integrated day, but the more universal the course is, the less strong the tendency ought to be.

ADDITIONAL RESOURCES

For further information about Universal Challenge Course installation, call Project Adventure, 508-468-7981. The Project Adventure publication, *Bridges To Accessibility: A Primer for Including Persons With Disabilities in Adventure Curricula*, by Mark D. Havens, can also be ordered by calling any Project Adventure office.

Camp Director's Primer to the Americans With Disabilities Act of 1990

From National Camp Executives Group in Cooperation with Markel Rhulen Underwriters & Brokers

Concepts in Program Accessibility

As has been described earlier, the Americans With Disabilities Act focuses primarily on issues of public accommodations and employment. In a resident or day camp, the issue of program accessibility is of equal or greater importance as the issue of site accessibility. For a camper with a disability to be successful in an integrated program, careful planning is critical to every aspect of the camp operation.

MAINSTREAMING GOALS

As a camp begins to prepare to serve children with disabilities, the following goals for the disabled camper, for other non-disabled campers or staff, and for the camp administration are recommended:

For the disabled camper, the principal goal is a camping experience as close to that of other campers as possible.

For the non-disabled camper, the goal is to gain understanding and acceptance from other/his disabled peers.

For staff, the primary goal is to guide the integration of the camper with a disability into the total camping environment and to assure that all campers are active members of the camp community.

For the camp administration, the goal is to open its programs to children with disabilities without significantly changing the camp's philosophy and mission.

CAMPER SELECTION

Every camper's experience begins with the application process. Whether you actively recruit campers with disabilities or simply accommodate those who seek out your program, it is vital to the campers' success to gather as much information about them as possible. There are a number of resources available that will make the selection process successful.

Perhaps the most valuable resources are the camper and his/her parents. For a camper with a disability who will be attending camp for the first time, it is important to have a face-to-face interview with the child and the family. Ideally this can take place in the family home, where the camp director can gain an understanding of how the child functions in the home environment. Through discussions with the child and parents, it can be anticipated how the prospective camper will adjust to the camp setting.

A family visit to the camp prior to enrollment is also desirable. If possible, the visits should be conducted while the camp is in session. This will help the camper and parents better understand challenges the child will face and will help the camp director plan for the child's eventual stay at camp.

The family visit to camp also provides an opportunity for the child and the parents to determine if your camp is the type of experience they are seeking. Like any other camper, a disabled child has certain expectations that your program may or may not be able to meet. A tour of camp can give the family the opportunity to realistically evaluate if the prospective camper can have a successful experience. It is possible that upon careful consideration, the decision may be made to choose a different program.

Teachers are another excellent source of information about a prospective camper. With the parents' permission, you can learn from the teacher how the child best functions in a similar, mainstreamed situation. If possible, the camp director should observe the child in the classroom and in other school activities. The lunch room and physical education class are two areas that can provide valuable insight to the camp director.

Other professionals that work with the prospective camper can also provide valuable information. You may wish to speak with the child's physician, therapists, and recreation leaders.

The purpose of the camper selection process is for the camp director, the camper, and parents to develop a mutual understanding of how the child will function in the camp environment. Through open dialogue between all parties, it should be possible to determine if this is the best choice for the child and what accommodations will be needed for the camper to gain the most from the camping experience.

STAFF TRAINING

Once a child with a disability has been accepted into a camping program, it is important that the entire staff be prepared to help make the child feel welcome in the camp community. For the majority of staff, it is not necessary, nor desirable, to discuss specifics about the child and his disability. However, precamp training does provide an opportunity to emphasize the staff's role as "counselors," to assure that each camper is respected and treated with understanding and dignity. Your training probably already emphasizes the treatment of each camper as an individual with different talents and interests. In this respect, preparing staff to work in an integrated camp is of little difference.

For those staff members who will be working directly with the disabled camper (counselors, activity leaders, and nurse) a more in-depth orientation is needed. On an as-needed basis, these individuals should be given all available information about the child that is appropriate to their role in camp. The child's counselors and the camp nurse will probably need the most information. In fact, it is a good idea for them to meet the camper and his/her parents before arrival at camp, or at least talk to them on the telephone.

Care should be taken to assure that staff is given a realistic view of the disabled camper's abilities and needs. Although staff must understand the child's limitations, it is important that the child's abilities not be underestimated. Early in the camper's stay, there is a greater risk of overprotecting and overassisting than of underassisting.

GENERAL PROGRAMMING PRINCIPLES

As you and your staff plan for the full participation of the disabled camper, there are four general programming principles that should be considered. *Together Successfully* (Authors: John E. Rynders, Ph.D and Stuart J. Schleien, Ph.D; Published by Association for Retarded Citizens of the U.S.), a new manual for creating recreational and educational programs that integrate people with and without disabilities, suggests the following guidelines:

1. **Adapt only when necessary.**

   Do not assume that every activity will need to be adapted to meet the needs of the child with a disability. Your goal should be to keep the disabled child's experiences at camp as realistic as possible. Only minor considerations will probably be needed.

   If an adaptation is warranted, seek the camper's input. In most cases they will be eager to let you know their needs.

2. **View adaptations as temporary, transitional changes.**

   Whenever possible, the camp leaders should work toward engaging the disabled camper in the activity as it was originally designed. If adaptations have been made to get the child involved, the goal should be to reduce dependency on the adaptation.

3. **Adapt on an individual basis.**

   Don't assume that each child with a disability will have a problem with eye/hand coordination or some other condition that requires special consideration. In consultation with the camper, and through careful observation, adaptation can be devised that meets the particular needs of the individual.

4. **Adapt for normalization.**

   If a modification of an activity is found to be appropriate for a disabled individual, care should be taken to keep the activity as close to the original version as possible. By using unnecessary adaptations or modifications, the disabled camper will be made to stand out from his/her peers.

TYPES OF ADAPTATIONS

In a typical camp setting, there are three types of adaptations that can be made to activities that will allow the camper with a disability to successfully participate with other campers.

Materials Adaptations

Some campers with disabilities may need specially adapted equipment or material to function fully at camp. In most cases, they will bring the devices with them. However, for some activities that are new to the camper or for which common adaptations are not available, makeshift modifications may be needed.

As an example, a camper who has poor upper body strength may have difficulty effectively swinging a bat in a softball game. An easy adaptation is to allow that camper to use a whiffle ball and bat. At the swimming pool, a camper who has spina bifida and, therefore, no feeling below the waist, risks the danger of scraping his/her feet on the rough bottom of the pool. An inexpensive remedy is to simply allow the child to wear socks in the pool.

Procedural and Rule Adaptation

Camps are notorious for inventing their own activities or modifying popular games to meet the needs of campers of varying ages and abilities. This same concept can be used to meet the needs of campers with disabilities. By making minor changes in rules or procedures for the individual with a disability or the entire group, success can be achieved by all.

For a camper with poor coordination, softball can be adapted by allowing four, five, or an unlimited number of strikes. If the activity is archery and the general procedure is for each camper to retrieve her/his own arrows from the target or backstop, a non-disabled peer may be asked to complete the task for a cabinmate who uses a wheelchair and cannot easily wheel up to the target.

Skill Sequence Adaptations

In activities where skills are being taught . . . such as swimming, canoeing, or dance . . . an effective way to teach an individual with a disability is to break the skill down into smaller steps. Your staff is probably doing this already, perhaps unconsciously, for younger campers. The trick is to carefully analyze the tasks needed to complete the entire activity and work on each one individually. In fact, each task can be viewed as an entire activity or project, thus, becoming a measure of success.

CONCLUSION

Camps accustomed to serving only "normal" children will be challenged by the inclusion of campers with special needs into their programs. However, with understanding and a little ingenuity, disabled campers can be integrated successfully into most activities. By viewing each camper as unique and striving to meet her/his individual needs, camp will become a more enriching environment for all campers and staff.

CHAPTER II

Risk Management Plans

RISK MANAGEMENT

Risk Management at The National Outdoor Leadership School

Tod Schimelpfenig, Former NOLS Risk Management Director
June 1994

Revised by Drew Leemon, NOLS Risk Management Director January 1997

BACKGROUND

The National Outdoor Leadership School (NOLS) was founded in 1965 by Paul Petzoldt. From its start as a summer outdoor program located in Lander, Wyoming, NOLS is now a year-round internationally recognized outdoor school with seven Branch Schools located in Wyoming, Alaska, Kenya, Arizona, Mexico, Chile, Washington, and western Canada. NOLS also conducts courses in the Garhwal Himalya of India and northwestern Australia. These programs are supported by the Pacific Northwest Branch located in Washington state. Approximately 2,500 students enroll each year, participating in more than 100,000 field days in multi-week wilderness expeditions.

The NOLS mission is to be the leading source and teacher of wilderness and leadership skills that serve people and the environment. Since our inception, the NOLS philosophy has been to develop judgment, leadership, and wilderness skills.

NOLS Risk Management Mission

To be the premier source and teacher of risk management in wilderness education.

Goal Statements

- To communicate to the NOLS community the expectation that the best efforts of all will be directed toward the prevention of fatalities, disabling injuries, and serious illness.
- To reduce injuries and illness through effective risk management systems.
- To provide premier curriculum and educational opportunities for students and staff, emphasizing safe outdoor practices, injury prevention, judgment, and effective emergency procedures.
- To be a major resource to the wilderness education field on risk management systems, outdoor education curriculum and training, and wilderness emergency procedures.

I. RISK MANAGEMENT LEVELS

A. The NOLS Board of Trustees Risk Management Committee

The NOLS board of trustees risk management committee monitors the program and results, formulates safety goals, strategies and standards, and participates in risk management audits.

B. Executive Director

The executive director consults with the risk management committee and the chair of the board of trustees. The director provides direction and guidance and reviews the ongoing risk management program.

C. Administration Director

The administration director oversees the risk management program at the management level. The administration director portrays our courses and their risks to prospective students in the catalogue and associated correspondence.

D. Risk Management Director

The risk management director at NOLS develops and implements risk management at the program level. The risk management director monitors injury, illness, and near miss reports, reports regularly to the executive director and administration director, tri-annually to the board risk management committee, recruits and trains NOLS field staff, and consults with loss control experts, physicians, and other outdoor education managers and field staff for insight into ways to improve both field and intown safety.

E. Personnel Department

Personnel selects and evaluates staff. Foremost in importance is obtaining an experienced, well trained staff to manage risk and facilitate the learning experience for students.

F. Branch School Directors

Each branch school director is responsible for the risk management program at the field level through: instructor briefings before the course; safety policies or guidelines for specific courses; instructor debriefings after the course; periodic reports to the risk management director; monitoring risk management concerns from staff; and course design and emergency procedure planning.

G. Course Leaders

Course leaders are experienced field staff promoted to this position in an orderly advancement through the NOLS instructor ranks, after having demonstrated high levels of experience, judgment, skill, and risk management.

H. Field Staff

Field staff directly influence the health and safety of the student in the field through their training and experience.

I. Students

The student has key responsibilities in the risk management program:

1. By reading the *NOLS Catalog of Courses*, the student and/or parent determines the general requirements of a NOLS course.
2. Once the student is registered, more detailed descriptions are sent that outline his or her particular course and that include information on physical conditioning.
3. The student and/or parent reads and signs an "Acknowledgment of Risks" form that describes hazard and risk issues involved in a NOLS course.
4. The student and his/her physician complete the medical review form and honestly describe their physical and psychological health.

In addition, the student receives an orientation before the course departs. During this orientation, various facets of the course are emphasized—travel conditions, living conditions, course environment, student and instructor responsibilities, drug and alcohol policy, and course goals. Finally, there is particular emphasis on safety of the individual as well as safety of the group. This orientation, along with the catalogue, course description, admissions process, and acknowledgment of risk, is designed to alert the student that risks do exist and that risk management is a priority on a NOLS course.

Once in the field, the student is an integral part of the risk management program at NOLS. Our students are expected, under the direct and indirect supervision of the instructors, to learn and practice leadership, judgment, decision making, and the risk management guidelines taught on all courses.

II. PROGRAMS AND SEMINARS

NOLS has a variety of programs and seminars designed to facilitate risk management:

A. The NOLS Core Curriculum

Each course provides fundamental knowledge, skills, and experience essential for risk management, minimum-impact use, and enjoyment of a wilderness environment.

1. Safety and Judgment: basic first aid, risk management and accident prevention, hazard evaluation, wilderness medicine related injury prevention and treatment, rescue techniques, emergency procedures
2. Leadership and Teamwork: small group expeditions, "leader of the day" opportunities, leadership styles, expedition planning, group dynamics
3. Outdoor Skills: campsite selection, shelter and stove use, fire-building, sanitation and waste disposal, cooking and baking, nutrition and rations, equipment care and selection, keeping warm and dry, route-finding and navigation, backpacking, kayaking, horsepacking, sailing, fishing, telemark skiing, caving, climbing
4. Environmental Studies: minimum impact camping and resource protection, ecosystems, flora and fauna identification, geology, weather, astronomy, multiple land use theory and practice, land management and cultural issues, public service and wilderness ethics

B. The NOLS Instructors' Course

The NOLS Instructors' Course, with river and mountain programs, is required for field staff and has a selection and review process to ensure participants have the necessary outdoor and educational background. It is an intensive 35-day learning experience with the core curriculum, with a strong emphasis on risk management. The most qualified graduates are offered employment at NOLS. First-time field staff are hired on an apprenticeship basis and must demonstrate a high level of competence to become a certified instructor; only certified instructors are offered subsequent employment.

C. Staff Training and Development

NOLS believes a key component to risk management is the continued development of a professional, experienced, and skilled core of instructors. To this end, NOLS offers and financially supports a variety of training and development opportunities for instructor to further develop as well-rounded outdoor leaders and teachers. These are as follows:

1. Instructor Careers. NOLS has three levels of responsibility for field staff: instructor, patrol leader, and course leader. Typically, an individual will work several

courses at one level. After demonstrating competence, judgment, and safety awareness, he/she is then promoted to the next level. This process assures highly competent, skilled, and experienced field staff at all levels.

2. Technical Skill Development Seminars. NOLS has in-house training programs in: avalanche and winter skills, wilderness emergency medical technician and first responder, rock climbing, mountaineering, caving, glacier travel, natural history, horsepacking, canyoneering, ice climbing, sailing, rafting, and sea and whitewater kayaking.

3. Personal Skill Development Seminars. NOLS provides staff training in leadership, group/expedition dynamics, educational techniques, ethical and legal issues, critical incident stress and evaluation techniques.

4. Instructor Development Fund. NOLS offers funding for field staff for expeditions and outside seminars. IDF funded expeditions have gone kayaking, sailing, and climbing to Mt. Foraker, Baffin Island, Chile, Everest, K2, Gasherbrum, Pumori, and Labrador, among others.

D. First Aid Training

Each NOLS instructor must hold, as a minimum, wilderness first responder and CPR certification.

NOLS has developed in-house first aid courses for its field staff, including an emergency medical technician program and a wilderness first responder course. Competent in backcountry emergency situations, NOLS staff also teach basic wilderness first aid and emergency procedure classes to students. Additionally, every NOLS student receives training in accident prevention, hazard evaluation, injury prevention and treatment, and rescue techniques.

In 1992, NOLS published *NOLS Wilderness First Aid* by Tod Schimelpfenig and Linda Lindsey. This is a field text for NOLS Semester and Instructor Courses and is used by other programs as a text for their wilderness first responder courses.

NOLS offers its field staff annual training in cave, avalanche, cliff, and water rescue to meet our needs in these specialized areas.

E. NOLS Risk Management as a Resource for Other Programs

NOLS shares its risk management expertise with other outdoor organizations through various seminars and programs. NOLS has sponsored a wilderness medicine symposium and regularly sponsors wilderness education conferences. NOLS staff frequently address symposiums on risk management and wilderness medicine. NOLS is a member of the Wilderness Medical Society.

In 1992 NOLS facilitated a gathering of experts and leaders of wilderness programs, called the Wilderness Risk Managers Committee. This group meets annually to discuss common issues and to share information and holds an annual Wilderness Risk Management Conference. This committee has also embarked on a project to develop a national incident data gathering system for wilderness activities.

Accounts and statistics of injury, illness, and near misses are gathered into the NOLS risk management database. This data was the source of a paper on injury and illness in wilderness programming: Gentile, D.A.; Morris, J.A.; Schimelpfenig, T; Bass S.M.; and Auerbach, P.S. *Wilderness Injuries and Illness.* Ann Emerg Med July 1992; 21:853-861.

In 1993 and 1996, an entire issue of the NOLS *Newsletter*, a publication for our staff, was dedicated to risk management with incident accounts, emergency procedures, risk management protocols and statistics.

III. ADMINISTRATIVE PROCESSES

A. Admissions Office

The admissions office is often the student's first experience with the NOLS risk management program. Our pre-course information strives to describe accurately the format, curriculum, and risks associated with our programs. The applicant's registration forms are reviewed by the admissions staff, many of whom are field instructors. Of special interest is the medical form. Its purpose is to gather information that will help ensure each applicant is physically and mentally capable of participating in the course (most applicants are capable of completing a NOLS course; however, there may be a more appropriate course for some applicants, e.g., kayaking for those with knee or foot problems). If additional evaluation is required, the medical form is reviewed by the risk management director. If necessary, outside medical advice is sought or the student's doctor is consulted.

By determining that applicants are healthy and are informed about the course, the admissions office participates in an important step in risk management.

B. Risk Management Audits

NOLS periodically performs risk management audits to determine the status of both intown and field risk management systems at each branch. Participants in the audit may include a board of trustees risk management committee member, another board of trustees member, the executive director, the risk management director, a senior NOLS instructor, and outside experts in loss control and adventure activities. NOLS has been accredited by review processes through the American Mountain Guides Association and at this writing is being reviewed by the Association for Experiential Education.

C. Risk Management Review Process

The risk management review process immediately reviews any major field incident. A panel of administrators, field staff, and outside experts examines all the data associated with the incident and makes recommendations.

D. Evaluations

Evaluations examining all aspects of each course and the risk management program in particular are routine practices at NOLS. We constantly work on improving this process. Evaluation of field staff and students includes safety, judgment, decision making, and leadership. Each instructor team evaluates their course; branch schools summarize their operating seasons; and NOLS produces an annual risk management report.

E. Course Paperwork

Each course is required to keep a detailed log including: (1) daily weather conditions, activities, student leaders, and student incidents with action taken; (2) class checklist; (3) camp location data; (4) field injury, illness, and near miss reports; and (5) evacuation reports.

IV. FIELD SUPPORT SERVICES

Risk management in wilderness programs is keyed by our mission and priorities, quality field and management staff, informed participants, and our curriculum. It is supported by equipment, rations, transportation, and emergency systems.

A. Equipment

NOLS maintains a complete inventory of course equipment, ensuring that each student goes into the field well equipped. NOLS equipment is designed to hold up under rugged conditions,

setting a standard for functional expedition equipment. Some equipment companies actually test their gear on NOLS courses and use the resulting evaluations to improve their designs. Students may bring their own equipment; however, it must meet NOLS standards.

B. Rations

In order to function at an optimal level in a wilderness setting (e.g., staying warm, comfortable, and healthy in the variety of conditions encountered on the course) students and field staff must eat well. NOLS prides itself on providing an ample variety of nutritious high energy food to courses.

C. Transportation

NOLS maintains its own vehicle fleet designed to transport students to and from their roadhead destinations. Most vehicles are serviced in-house to protocols that exceed manufacturers' recommendations.

NOLS drivers are trained in-house with a program that includes state licensing requirements, vehicle service/maintenance procedures, and defensive driving.

D. Evacuation Coordinator System

Should an injury or illness necessitate a student leaving a course, NOLS has developed an efficient and well organized system to render the student medical attention as soon as practical. The remoteness of our course areas creates complex emergency situations without simple solutions. It is not uncommon to be more than 48 hours from medical help on a NOLS course. We carry radios or other emergency communication devices on most of our courses, but due to weather, remoteness, and technical limitations, these do not guarantee rapid evacuation.

1. Field staff are briefed on the location of all roadheads as well as the communication possibilities in their area. They prepare a written evacuation field report to detail their evacuation plan.

2. There are NOLS staff on duty 24 hours a day ready to receive emergency or evacuation calls at all NOLS branch headquarters. This is facilitated through the use of toll free emergency phone numbers, cellular telephones, personal pagers, and other electronic communication devices. NOLS support staff arranges support for the evacuation: transportation, medical care if needed, in-town housing, meals, etc.

3. The evacuation/branch support staff and the admissions office respond to the students' needs; including phone calls to parents, continuing medical attention, etc.; once they are out of the field.

The risk management program at NOLS involves employees at every level of the school. Despite a gradual increase in yearly enrollment, the safety record at NOLS continually improves. One measure of risk management at NOLS is our field evacuation rate, published annually in our State of the School report.

CONCLUSION

There is a risk management consciousness that pervades the school and, indeed, guides every step of the school's development. Risk management has always been and will continue to be a priority at the National Outdoor Leadership School. Nevertheless, no matter how many safety systems an organization employs, and no matter how stringently those systems are enforced, accidents will happen. We cannot—nor can anyone—reduce that possibility to zero. We do not seek risk for the sake of risk, but the wilderness areas that are the classrooms for our educational expeditions have no handrails and no simple solutions for complex emergency situations. Participants on our courses must accept the fact that risk of injury or death is unavoidable during travel and recreation in remote areas.

Boojum Institute for Experiential Education

Employee Risk Management

PURPOSE

The purpose of this section of the staff manual is to serve as a guideline for general risk management practices for employees, interns, and volunteers of the Boojum Institute. Individual conditions may vary due to a variety of circumstances, and in such cases, some of these guidelines may not fully apply. It is the intent of the Administrative Staff to provide the resources and tools necessary to do the job, keeping risk management as the highest priority.

This section will offer some basic risk management information that you can apply to your particular job. If at any time you feel a hazardous situation or condition exists that is beyond your ability or level of training, or that you don't have the proper tools to meet the task, you are to report it to your supervisor or to the Executive Director. Please become familiar with our risk management policy statement, which outlines our commitment.

RISK MANAGEMENT POLICY STATEMENT

Boojum Institute has a risk management program designed to reduce accidents, injuries, and property damage to both the employees and participants. The health of our participants and employees is our primary concern. It is our intention that the mechanical and physical facilities are maintained in accordance with the highest possible standards and that all proper methods and instructions are followed. Boojum Institute supports an accident prevention program that requires employees to know their jobs, to know the procedures to follow to correct hazardous conditions or situations that may arise, and to be motivated to cooperate in maintaining an accident-free environment. The urgency of task completion cannot be at the expense of the welfare of employees and participants.

It is expected that every employee set the example for both participants and other employees by strict compliance with good risk management practices. This responsibility must be accepted by all employees.

INJURY AND ILLNESS PREVENTION PLAN

Managing risks on your behalf, on that of your co-workers, and of participants' is a primary commitment of Boojum Institute. It is our intention that our facilities, equipment, and program practices model proper methods and maintenance to prevent injury and illness.

Workplace risk management is every staff member's responsibility. In order to achieve this, staff members should know their duties, know the procedures to follow to avoid hazardous situations, and be motivated to maintain an accident-free workplace. The urgency of accomplishing a task should never compromise risk management and prudent practices. We expect staff to question supervisors before engaging in an activity with which s/he is unfamiliar.

Important elements of our injury and illness prevention plan include:

1. Risk management communications: Posters, fliers, risk management meetings, and various other information made available to employees.
2. Hazard assessment and control: Continuous internal and external evaluation of procedures, programs, equipment, and facility maintenance, including inspections, peer consultations, and accreditation reviews.

3. Incident investigation: Internal and/or external investigation, analysis, and recommendations from significant incidents.

4. Prevention-oriented planning: Prior to courses, procedures, risk management, emergency action, and injury and illness Prevention.

5. Risk management training: Risk Management Practices, Staff Training, and required emergency care training.

6. Reporting incidents: All staff members involved or witness to an incident, injury, or "close call" must report it using a Boojum Incident Report.

7. Hazardous materials communications plan: In general, program staff do not use materials that are hazardous in the performance of their duties. Should you need to use a chemical that may be hazardous, please ask the Program Director for the appropriate information and training for that chemical before use. Warnings and directions for use of the following commonly used chemicals will be found in the Field Manual: chlorine crystals, hydrogen peroxide, iodine (tincture and crystals), white gas, and liquid propane (LP) gas.

8. Horseplay: Friendly pushing, shoving, jumping, and similar actions are the cause of numerous accidents resulting in injury or property damage. Therefore, it is our policy not to engage in "horseplay." Such activities are not "in the line of duty," and, hence, any injury thus occurring is not compensable under workers' compensation, and is the financial responsibility of the individual staff member(s).

9. Off-duty activities: Employees are not required to participate in Boojum-sponsored post-work parties or recreational, social, or athletic activities. An employee's participation in such events or other non-work activities is strictly voluntary and at the staff member's own risk.

GENERAL RISK MANAGEMENT CODE OF PRACTICE

The following represents working practices that should be followed in all work areas.

1. Always think before acting.
2. Report all hazardous conditions to your supervisor.
3. Report all accidents to you supervisor immediately.
4. Know the location and use of fire extinguishers.
5. Wear appropriate protective clothing and footwear for each job.
6. Exercise caution when lifting, climbing, or bending.
7. Know your own personal physical limits. Ask for help when necessary.
8. Do not remove hazard warning devices or tags.
9. Keep fire exits, stairs, and walkways free of obstacles.
10. Take the time to do the job right.

Mechanical Jobs

1. Unauthorized personnel should not be in work areas.
2. Good housekeeping will prevent many accidents.
3. Be aware of emergency procedures for evacuation and power outages.
4. Pressurized containers should be secured.
5. Operate only equipment you are authorized to use.

Clerical Jobs

1. Use proper seating posture.
2. Be careful around sliding cabinets and file drawers.
3. Exercise caution when lifting or carrying.
4. Exercise caution when using sharp objects (pens, pencils etc.).

Field Jobs

Refer to the Course Director, Field, and Rock Climbing Policy manuals (as necessary).

Transportation Jobs

Refer to the Vehicle Operations Manual, Course Director, and Field Manual (as necessary).

ESSENTIAL JOB FUNCTIONS

If you have physical limitations that prevent you from performing the essential job functions for which you were hired or asked to perform, and reasonable accommodation has been made, there may be additional hazards. If special protective equipment is needed, contact your supervisor before performing any work to discuss potential risk management solutions.

RISK MANAGEMENT TRAINING FOR EMPLOYEES

This section of the staff manual is your risk management guide. Read it, and refer to it as needed. When you are trained for your specific job, you will be given additional instruction on work practices and on the proper use of tools and equipment. During your training, you will have an opportunity to ask questions about any aspect of your work that you do not understand, and you are encouraged to do so. In addition to the initial training, there will be periodic in-service meetings to discuss further risk management and training issues.

HAZARDS REPORTING

All employees are required to report to their supervisor any hazardous condition or work practice that may exist in any area of Boojum practices and programs. There will be no penalty for reporting. You are encouraged to eliminate the hazard or condition if it is within your scope of work. If you do this, you should notify your supervisor as to what you did and why. There may be certain existing conditions that cannot be immediately repaired or replaced, and need to be looked at from a management/budget perspective. For these situations, please report them to the Program Director, and they will be discussed in terms of priority for future projects.

WORKPLACE INSPECTIONS

Periodically, we self-inspect our work and course areas to look for hazards, to identify areas where we need to improve, and to document our identification of problem areas. These inspections will be performed by different people, and someday you may be asked to do the inspection. We believe that by rotating our inspectors, we can take a better, more objective look at our risk management practices. If hazardous conditions are noted, they should be written down and reported to management. If you can correct the hazard immediately, do so. If the hazard is of such a magnitude that it poses a substantial and imminent risk of injury, notify management to "red tag" the situation until it can be corrected.

ACCIDENT INVESTIGATION

In the event that you are injured, you should report it immediately. You will be required to fill out an Employee Report of Injury. These reports are very important to determine cause factors and eliminate future losses/injuries. We expect full cooperation in obtaining the necessary information. In some cases, your supervisor will need to interview you in order to fill out a supervisor's report; we also may need additional reports, photos, or even video, depending on the situation. Preserve all evidence, and record witness contact information for accurate documentation.

LIABILITY LOSSES

In the event that a participant is injured., we need to gather all the facts about the loss. As an employee, you play a vital role in helping management sort out facts such as what happened, why it happened, how it happened, who suffered loss, and where it happened. The post-accident investigation may include reports, witness statements, photos, video, and preservation of evidence. We expect full cooperation in these investigations and appreciate your help in conducting them.

DISASTER PLANNING AND EMERGENCY PROCEDURES PLAN

Communication is the key factor in our Disaster and Emergency Procedures Plan. In the event of a major disaster involving serious injuries and loss of life, communication between our staff and local authorities, clients, and next of kin becomes vital. Our initial steps will be to minimize the effect of the loss by containing what we can, preserving human life first and then property. We will attempt to evacuate and secure staff and participants before attempting to save buildings or other assets. We will assist local law enforcement, fire, emergency medical personnel, and other agencies, and will report to the designated supervisor.

During or in the aftermath of a disaster or emergency of any kind, all press/media relations will be handled by the Executive Director. In order to control accuracy and to keep the situation in perspective, no employees are authorized to make official statements to any media or outside representatives without express written permission from the Executive Director.

A Notification Sequence including phone numbers is available in each Field Manual. Please use these numbers only in the event of an emergency.

See the Boojum Emergency Action Plan for more information.

SUBSTANCE ABUSE

Boojum Institute's Drug and Alcohol Use Policy prohibits employees from working under the influence of illegal drugs and alcohol. Studies have shown that substance abuse in the workplace leads to substandard performance, absenteeism, increase in accidents, and workers' compensation claims. It is our

intention to maintain a workplace free of drugs and alcohol. When you are working, we expect you to have 100% of your capabilities. Please respect our policy and help us maintain a drug- and alcohol-free work environment.

DISCIPLINARY ACTION

Failure to follow prescribed risk management rules and use good judgment may subject you to disciplinary action, including termination of employment. For Boojum to be successful as an organization, we need everyone's help and commitment to our risk management efforts.

WORKERS' COMPENSATION

All employees of Boojum are covered by Workers' Compensation Insurance for injuries arising out of or in the scope of employment. Work-related injuries must be reported immediately in order to insure prompt benefits. If you have any questions or problems, or if you need more information, please contact the Executive Director.

Benefits

There are three basic kinds of benefits:

1. Medical care: doctors' fees, charges, etc.
2. Temporary disability: cash payments to replace lost wages.
3. Rehabilitation: to get you back to work.

If You Are Injured on the Job

Contact your supervisor immediately. The supervisor should then complete a Supervisor's Report of Injury Form. It is important for us to know what caused the injury, when it occurred, who witnessed the incident, and why it happened. You will be treated for the injury and given instructions from there.

Getting Back to Work

If your injury is not serious, and the doctor gives you a work release, you may return to your job. If the injury involves lost work days, you will need to have a doctor's release prior to starting work again. There is no cost to you.

Light Duty

In some cases, you may be released to light duty work. On occasion, we have light duty work available. If you refuse this work, you could lose your temporary disability payments.

University of New Hampshire

Sample General Risk Management Plan

LOCATION

The specific area/site that plan pertains to. Example: Pawtuckaway State Park.

LOCATION OF NEAREST PHONES

Include specific location of phones that are near the location(s) being used. Example: Billy's General Store; 1 mile from south entrance of park on route 99; visitor's center located in the north end of the park.

NEAREST MEDICAL FACILITY

Include name, location, and phone number of the nearest hospital. Give approximate distance in relation to area. Example: Memorial Hospital is 20 miles from the North entrance of the park. Also include the locations/numbers of any facilities within the specific areas that have first aid services. Example: visitor's centers, ranger stations, etc.

EMERGENCY AGENCIES AND PHONE NUMBERS

This must include local (or nearest) police, fire, rescue, and appropriate state police 800 number. In addition to these numbers, any other specific agencies/numbers should be included. Example: Forest Service/ranger stations, Coast Guard, etc.

MAPS

Include maps of the specific area as well as its surrounding community. The location of medical facilities and locations of phones should be marked if possible (attach additional sheets if needed).

FORMS

Administration

University of New Hampshire

The Browne Center
Goals Form

YOUR NAME: GROUP: DATE OF PROGRAM:

The more we know about your group, the better equipped we will be to design a program and choose activities that address your group's purposes for participating. Please be specific when filling out this form. Feel free to use the reverse side if more space is needed. Return the completed form along with your payment at least 30 days prior to your program.

BACKGROUND

Please tell us about the nature of your group: How long has the group been together; what is its mission; what dynamics exist within the group that may have an impact on its experience?

PRIOR EXPERIENCE

Please describe any group or experiential activities this group may have done prior to coming to the course. If you have signed up for rock climbing or orienteering, please describe any related experience the group has had.

GOALS

What do you wish to accomplish with your group through an action-learning program? Include both short- and long-term goals, as well as group and individual objectives. These might include: cross-functional communication, team-building, quality, empowerment, problem-solving, project management, etc.

SPECIAL REQUESTS

Please explain any special requests your group may have. (For example, list specific activities or exercises that you would like to do.)

Participants' Bill of Rights

Nicki Fiehier, Barb Mullins, Jed Williamson

Participants are entitled to:

1. Respect from all staff. This means:
   - that individuals shall be treated with care and concern for their physical, emotional, and psychological well-being;
   - that behavior is separated from an individual's core identity and sense of self. In other words, though a person's actions may be unwise or poorly thought out, it does not mean that he or she is "stupid" or "thoughtless" or "inadequate";
   - that a person's beliefs and values will be treated with respect, and that no staff members will attempt to promote their own religious, political, or value-system beliefs.
2. Confidentiality and privacy by all program staff.
3. The knowledge and understanding that staff encourages students to expand their comfort zones, but follows the philosophy of "challenge by choice." This means that participation levels are chosen by each person, and refusal to participate in activities bears no punitive or external consequences.
4. Be informed of the hazards, dangers, and risks inherent in the proposed activities.
5. Professional, safety conscious, and responsible staff.
6. Have equipment and safety systems that are well-maintained.
7. The knowledge that no one will be discriminated against or refused professional services on the basis of ethnicity, gender, sexual preference, national origin, religion, disability, or socioeconomic status.
8. The right to experience new, exciting, and interesting activities and environments; to discover more about themselves and others; and to have some sense of joy and fun in the process.

Health

Joy Outdoor Education Center

Participant Confidential Medical Record—Adult Form

Group Name: _____ Dates: _____

PART 1 GENERAL INFORMATION

Name _____ M___ F___ In an emergency contact _____

Occupation _____ Relationship _____

SS# _____ Home Telephone # _____

Street Address _____ Office Telephone # _____

City/State/Zip _____ Physician's Name _____

Home Telephone # _____ Telephone _____

Office Telephone # _____ Fax # _____

INSURANCE: Each participant is responsible for medical expenses. Sickness and accident insurance is recommended, but not required.

Insurance Company _____ Policy # _____

Street Address _____ City/State/Zip _____

Does insurance company require preauthorization? Y N If yes, telephone # _____

PART 2 MEDICAL INFORMATION

A. Allergies (including medicines, foods, bites, stings). List below (use back of page if necessary) _____ NONE

Allergy	*Reactions*	*Medication Required*

B. Medication. List below (use back of page if necessary). _____ NONE

Medication	*Condition*	*Dosage (amount/frequency)*	*Side Effects*

PART 3 HEALTH PROFILE

Check and describe below

Yes	No		Yes	No	
___	___	1. Pregnant	___	___	5. Neck/back/shoulder/knee/ankle problem
___	___	2. Medical equipment	___	___	6. History heart attack/bypass/ angioplasty/angina
___	___	3. Seizure within past year	___	___	7. Other cardiac conditions (heart murmur/ irregular heartbeat (specify below)
___	___	4. Hospitalization/ emergency room visit within past year	___	___	8. Other medical issues/illness/symptoms/ needs

Issue Detailed description, including symptoms/restrictions (use back of page if necessary)

PART 4 CARDIOVASCULAR FITNESS ASSESSMENT

Please carefully answer the following questions; your answers will help us determine the appropriate activity level for your upcoming Venture Out! training process.

A. Vital Signs/Statistics

Age _____ Height_____ Weight_____
Blood pressure (taken within 6 months) BP_____/_____ Date taken _____
If systolic is over 150 and/or diastolic is over 90, please have a second reading taken.
2nd BP _____/_____

B. Cardiovascular Risk Factors

Yes	No	
___	___	High blood pressure, even if being treated with medication
___	___	Smoker
___	___	Diabetic requiring medication
___	___	Known abnormally high cholesterol level or on a special diet or medication for a lipid abnormality
___	___	Family history (parents/siblings) of heart attack, coronary artery bypass, angioplasty, or sudden unexplained death before age 55
___	___	Unexplained chest pain/pressure, shortness of breath, heart palpitations, sweats, or exertional dizziness or faint spells

C. Current Exercise Activity
Please list or _____ NONE

Activity	*Frequency*	*Approx. Time/Dist.*	*Leisurely*	*Moderately*	*Intensely*

INSTRUCTIONS

Please return this Participant Medical Record as soon as possible, so we may have adequate time for review and/or possible follow-up questions.

We will determine the status of your participation after review of this form. Further evaluation may be needed by a physician in order to fully participate. If you choose not to proceed with the recommended follow-up, you will have the option of limited participation (based on your medical constraints).

If you do not return this form, your status will be as an *observer* only.

NOTE: Most of our programs are structured to accommodate various levels of participation based on medical constraints. Regardless of your physical condition, we expect you to pay attention to your body and its physical limitations in choosing your level of participation.

PART 5 SIGNATURE REQUIRED

Consent is hereby given for the applicant to attend a Venture Out! program and permission is given for any emergency anesthesia, operation, hospitalization, or other treatment that might become necessary. All information will remain confidential. You should know that many participants with a variety of medical/psychological difficulties have successfully completed our programs over the years, but we must be aware of these conditions. Failure to disclose such information could result in serious harm to you and your fellow participants. If you are unable to participate physically in a program because of a pre-existing condition that was not indicated on your medical form, you will not receive a refund.

Signature: _____ Date: _____

SHORT MEDICAL FORM ADULT Wilderness Medical Associates Inc. 1997
Effective 3/27/97

Cardiac Risk Assessment & Adventure Programs

By Dr. Frank Hubbell

Adventure programs are considered "adventurous," at least in part because they may require a fair amount of unusual physical or emotional responses. Activities in adventure programs are often exciting, potentially producing fear and anxiety that can be extremely provoking (e.g., high elements on ropes courses, climbing or rappelling, white water rafting, kayaking). Part of the learning and team building process is discovering how to harness this anxious emotional energy and make it work for you, not against you.

Adventure programs are available to anyone. However, not everyone is physically or emotionally capable of performing well in these situations and, as a result, may be putting themselves at risk of having an acute cardiac event, such as a potentially lethal heart attack. But is there a relatively simple way to predict who is at risk of an acute cardiac event? Being able to identify a high risk participant would allow an adventure group to modify the program for that individual, thus minimizing the risk of a heart attack during the course. Obviously, in the opinion of this author, the answer to the question is, "yes," there are predictors that can be used to identify individuals who have significant cardiac risk factors and would therefore be at increased risk.

Heart disease is a very common medical condition in this country. The term "heart disease" includes hypertension, coronary artery disease, angina pectoris, congestive heart failure, and a history of myocardial infarction. Heart disease is the No. 1 cause of death in the U.S., but quite often remains undiagnosed until an acute event such as a myocardial infarction (heart attack) occurs unexpectedly.

The heart is a muscle. Like any muscle, it requires constant blood flow from itself to itself to maintain a supply of oxygen and nutrients and to carry away waste products. The heart responds to demands placed on the rest of the body. During periods of physical exertion, it will increase the cardiac output, or blood flow, to meet the increased oxygen demand of the muscle groups being used.

The heart can also be stressed to increase cardiac output by certain hormones produced by the body. One of these hormones is adrenaline, also known as epinephrine. Adrenaline, produced and stored by the adrenal gland, which sits on top of the kidneys, is the hormone used for fight or flight responses. When the brain perceives a dangerous or frightening situation, the adrenal glands secrete adrenaline into the blood stream. Adrenaline provides the burst of added strength and speed that may be needed to escape or survive the situation. As part of this process, adrenaline also increases heart rate and the strength of contractions of the heart muscle to dramatically increase cardiac output and supply more blood and oxygen to the muscle groups utilized in that particular situation.

As mentioned in the beginning of this article, adventure sports participants may find themselves not only in a physically demanding activity but also in one that is frightening or anxiety-provoking. As a result, their hearts, driven by the adrenaline secreted in response to the fear factor and the demands of the muscles for increased oxygen-rich blood, must work twice as hard. Individuals with underlying heart disease may suddenly find this demand to be too great for their diseased hearts and suffer an acute cardiac event in the form of a myocardial infarction, or heart attack.

The problem for the adventure programs is identifying those individuals with an underlying heart disease that could become a problem under times of extreme cardiac stress from the combination of physical exertion and fear. Obviously, it would be virtually impossible to identify every individual at risk; however, we can identify those with definite risk factors and, if needed, modify the program to minimize the cardiac stress and risk.

The currently identified **cardiac risk factors** include:

- Has a known history of coronary artery disease, angina pectoris, or a previous myocardial infarction
- Has a history of hypertension
- Is currently taking medications for hypertension or cardiac disease
- Has diabetes, either insulin dependent (IDDM) or non-insulin dependent (NIDDM)
- Has a history of elevated blood cholesterol or triglycerides
- Is a smoker
- Consumes more than one alcoholic beverage per day on the average
- Has a family history of heart disease
- Is overweight and does not have an exercise routine
- Has a history of chest pain with exertion

These identifiers can and should be incorporated into a standard form that each individual completes before participating in an activity that is going to stress the heart. Some of these risks factors are better indicators than others and alone should suggest that the individual needs to be in a modified program.

The first and most obvious questions are historical. Does this person have a known history of coronary artery disease? Have angina pectoris? Had a previous myocardial infarction? Had open heart surgery or a coronary artery bypass? Have hypertension? Ever had a stroke? Currently taking any cardiac medication? If so, these individuals need to either be in a modified program with less stress or to present a letter from a cardiologist stating that her/his heart would tolerate stress.

Individuals who have chest pain with exertion, especially if it's associated with shortness of breath and sweating, also need to be evaluated by a cardiologist because this constellation of symptoms are very strong indicators of underlying coronary artery disease.

The other risk factors alone indicate that the person has potential risk for heart disease but do not indicate if the person currently has heart disease. But several of the factors combined are strong indicators that the person most likely does have underlying heart disease and should be questioned more closely or should participate in a modified program.

Individuals with diabetes have an increased risk of heart disease over non-diabetics, as do individuals with elevated blood cholesterol or triglycerides, smokers, drinkers, overweight individuals without an exercise routine, and people with a strong family history of heart disease.

The following is an example of a CARDIAC RISK ASSESSMENT form:

I. **Previous Cardiac History:**

Do you have a history of any heart disease?	yes/no
Have you ever had a heart attack or a stroke?	yes/no
Have you ever had open heart surgery?	yes/no
Do you have hypertension?	yes/no
Do you take any cardiac medications?	yes/no
Do you have chest pains with physical exertion?	yes/no
Have you ever had a stroke?	yes/no

II. Cardiac Risk Factors:

Do you have diabetes, NIDDM or IDDM?	yes/no
Do you have elevated blood cholesterol or triglycerides?	yes/no
Do you smoke?	yes/no
Do you consume more than one alcoholic beverage per day?	yes/no
Do you have a family history of heart disease?	yes/no
Do you have a daily exercise routine?	yes/no

If any of the part I questions are answered "yes," then he/she need to either participate in a modified program or have a letter from a cardiologist stating that her/his heart will tolerate the stresses of the program.

If three or more of the risk factors in part II are positive, then the participant should be questioned in more depth as to any current signs or symptoms of heart disease, such as chest pain or shortness of breath with exertion, and should be given the recommendation to participate in a modified program. Most important, if an individual who has been identified as having risk factors of potential heart disease suddenly develops chest pain or shortness of breath while participating in the program, he/she should immediately be treated as if a myocardial infarction were in progress.

As stated earlier, it is impossible to identify every individual who might possibly have an acute cardiac event while participating in an adventure program. However, it is very possible to identify those at significant risk and offer them modified programs to minimize that risk. In addition, it is most prudent to suggest they pursue further evaluation by a cardiologist.

A corollary to the recognition of cardiac risk factors is the provision of rapid care in the case of a cardiac event. All adventure program trainers should have first aid and CPR training appropriate to the level of activity and distance from definitive care. There are organizations available that can provide specific training in cardiac risk assessment for adventure programs.

Camp High Rocks

Bloodborne Pathogen Training

DEFINITION OF TERMS

Bloodborne pathogen: Pathogenic micro-organisms that are present in human blood and cause disease in humans. These pathogens include but are not limited to Hepatitis B Virus (HBV) and Human Immuno-deficiency Virus (HIV).

Contaminated: The presence/reasonably anticipated presence of blood or other potentially infectious pathogens on an item or surface.

Exposure incident: A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.

Source individual: An individual whose blood or other body fluids may be a source of occupational exposure to an employee. A source individual may be a camper or a staff member.

GENERAL INFORMATION ON BLOODBORNE PATHOGENS

(from Transylvania Health Department "Bloodborne Pathogen Training File.")

HIV

HIV is a virus that is triggered to attack the body's natural immune system. A person infected with HIV may live for up to 10 years without showing symptoms before acquiring AIDS. Currently, AIDS places the patient at high risk for other fatal infections.

Populations at risk:

- intravenous drug users
- homosexual/bisexual men
- heterosexuals with multiple partners
- sex partners of HIV-positive person
- newborns of HIV mothers

Modes of transmission:

- exposure to blood and blood products
- sexual contact
- direct contact between open lesions
- infected mother to newborn fetus

Symptoms can include: dramatic weight loss, swollen lymph glands, chronic diarrhea, night sweats, and fatigue.

Preventative measures to guard against contracting HIV include: universal precautions and avoiding high-risk sexual or drug-use practices. There are currently no vaccines for HIV.

HBV

Hepatitis B is an inflammation of the liver caused by HBV. The disease may be asymptomatic or like a mild case of the flu, or may require more extended bed rest or hospitalization. Once acquired, hepatitis can lead to severe liver damage or death.

Population at risk:

- intravenous drug users
- homosexual/bisexual men
- heterosexuals with multiple partners
- individuals from areas where HBV is endemic
- dialysis patients

Modes of transmission:

- same as HIV
- prolonged and close household contact

Symptoms can include: fatigue, nausea, poor appetite, fever, joint pain, skin rashes, tea-colored urine, and jaundice.

Preventative measures to guard against contracting HBV include: universal precautions, avoiding high-risk sexual or drug-use practices; immunization series upon exposure.

HBV immunization Series: A vaccine series has been developed to aid in preventing hepatitis B. Injections are taken at 0, 1, and 6 months after the exposure incident. Studies have shown a 90% effectiveness rate of the vaccination. Side effects include local redness and soreness but are generally mild. Hypersensitivity occurs on rare occasions. Protection lasts for around 9 years. Blood testing and booster shots are not recommended unless there has been an exposure incident. The series does not protect against Hepatitis A Virus (HAV).

IN OUR CAMP SETTING

In this day and age, it is necessary to consider every incident involving blood or bodily fluids as a potential exposure incident. It is incumbent upon us as individuals to make decisions as to the follow-up we choose after such incidents.

In determining who is at risk, we look primarily to the designated first aid provider, our nurse. Of all our staff, the nurse will be at greatest risk given his/her closer and more frequent contact with potentially contaminated fluids or objects. The rest of us on staff fall into a "de minimis" classification as set by OSHA (Occupational Safety and Health Administration). That is, we are expected to "render first aid as a collateral duty, responding solely to injuries resulting from workplace (i.e., camp) incidents, generally at the location where the incident occurred." Under this classification, camp is required to offer the HBV immunization series within 24 hours after an exposure incident occurs, if the exposed staff member requests such action. In addition, camp will train staff in the transmission of bloodborne pathogens and in the reporting of exposure incidents.

In general, we are dealing with a very low-risk population. Our campers are generally not from a background involving high-risk behavior. It is up to us to decide how we will choose to respond to this risk.

EXPOSURE CONTROL PLAN

Universal Precautions

There are some universal precautions that we would suggest all individuals take. They apply to situations involving:

blood and blood components
semen, vaginal secretions
fluids: cerebrospinal, synovial, pleural, peritoneal, pericardial, amniotic, body tissue (brain, spine, joints, lungs, body cavity, heart) saliva—from a bite

Situations of less urgency include: feces, nasal secretions, sputum, sweat, tears, urine, vomitus. These assume that no visible blood is present. We would still advise taking general infection-control caution.

Standard universal precautions include:

a. Wash hands frequently, using soap, warm water, and a fresh paper towel to dry. Lather hands with soap for 10-15 seconds before rinsing. Wash hands before eating or serving food, after visiting the restroom, and before and after donning gloves.

b. Avoid direct contact with blood or other body fluids. Use latex gloves and/or other clothing as a protective barrier. Use latex gloves when cleaning up blood or other body fluids. Wash hands and skin surfaces immediately and thoroughly after potential exposure incidents. Remove and launder contaminated clothing.

c. Cover open cuts, sores, or abrasions with sterile dressing or bandage or other protective cover.

d. Clean up spills in a timely fashion, using appropriate disinfectant solution, which can be obtained from the infirmary.

e. Decontaminate mops, brooms, and towels used in cleaning up blood or body fluid spills by soaking in health-code-standard cleaning solution; towels should be laundered then.

f. Decontaminate bathroom facilities and other higher-risk exposure areas with appropriate health-code-standard cleaning solution.

g. Maintain individualized personal hygiene items; they should not be shared.

h. Wear gloves when sorting laundry.

i. When it is necessary to perform cardiopulmonary resuscitation (CPR), it is advisable to use a mouthpiece or Laerdal mask. These masks should be properly disinfected in the infirmary after use.

Responding to Incidents

Incidents may arise during camp that put us at risk of possible exposure to blood and other body fluids. From our role as "in loco parentis," we are expected to respond to incidents that occur, and to provide first aid assistance until a more qualified individual, such as the camp nurse, arrives. Because of this expectation, camp recommends that we stay prepared for such encounters. It is the individual's choice, but camp offers latex gloves for the staff to carry with them at all times. Furthermore, each cabin and designated activity area will have a "primary protective kit" including gloves, a Laerdal mask, alcohol swabs, primary dressings, and plastic waste bags. These are to be used for initial protective precautions before the nurse arrives; they are not to be used for minor cuts or scrapes, which should be dealt with in the infirmary.

Procedures used in rendering first aid will in general follow American Red Cross procedures or Wilderness First Aid procedures depending on the location of the incident.

FOLLOW-UP TO POSSIBLE EXPOSURE

After a possible exposure incident, it is up to the potentially exposed staff member to report the incident and to make a decision as to the follow-up desired. The Incident Report Forms in the infirmary have a place to record the follow-up option chosen.

Potentially exposing incidents should be reported within 24 hours of their occurrence. It will be assumed that if a staff member does not personally report an incident with the infirmary, that he/she is choosing to forego infirmary assistance and to forego the immunization series. Reported incidents have the following subsequent options:

a. foregoing infirmary assistance or immunization series

b. accepting infirmary assistance/foregoing immunization series

c. accepting infirmary assistance/requesting immunization series

d. all of (c) and further evaluation involving: blood testing of employee and source individual for HBV and HIV (consent must be granted by source individual or parent or guardian if source individual is a minor); counseling; evaluation of reported illnesses within 12 week after exposure

Infirmary assistance involves extra washing of possible contaminated skin (soap, alcohol swabs, betadine swabs, etc.) and primary or secondary dressings as needed.

The immunization series involves receiving the first of three HBV shots within 24 hours of potential exposure. The second shot occurs after one month, and the third shot is taken after 6 months.

Training: Staff will receive the above information and instruction during staff orientation and will document their attendance and understanding of it.

National Outdoor Leadership School

Bloodborne Pathogens

AIDS AND WORKING AT NOLS

AIDS has not been a featured media topic lately, and may not be in the forefront of our minds. It continues, however, to be a significant health concern. The purpose of this article is to update AIDS concerns for both in-town and field staff.

CAN AIDS BE TRANSFERRED IN THE WORKPLACE?

Based on current available medical and scientific opinion, including statements from the Centers for Disease Control (CDC) and the U.S. Public Health Service, there is no evidence that the AIDS virus is transmitted casually in ordinary social or occupational settings. AIDS is a bloodborne, sexually-transmitted disease. "No known risk of transmission to co-workers, students, or family exists from AIDS-infected workers in offices, schools, factories, or construction sites. Casual contact with saliva and tears does not result in transmission of infection. The kind of non-sexual person-to-person contact that generally occurs among employees in the workplace does not pose a risk for transmission of the AIDS virus." (1,6,9)

HOW DOES AIDS AFFECT EMERGENCY MEDICAL CARE AT NOLS?

All health-care workers and NOLS staff performing emergency care in the field as a collateral duty need to take certain well-documented precautions to prevent transmission. In addition to AIDS, health-care workers are at risk for contact with Hepatitis B (HBV) virus, a hardier and more infectious virus than HIV. Hepatitis B transmission routes are virtually identical to HIV. Hepatitis B is a major occupational health hazard in the health care industry. (4,6,9,10)

You must assume all patients are potential carriers of a bloodborne pathogen, and consistently use blood and body fluid precautions. Medical history and socioeconomic status are not reliable means to identify all patients infected with a bloodborne illness. (8)

1. In accordance with the recommendations for health care workers published by the CDC and the National Institute for Occupational Health and Safety, disposable gloves should be worn when in contact with blood or body fluids (these are provided in first aids kits). However, administration of care should not be delayed because gloves are unavailable. Considering the amount of blisters and small cuts an instructor dresses during a 30 day course, a glove policy would require at least 100 pairs of gloves. An alternative is the careful dressing of small wounds and blisters to avoid contact with blood and body fluids. Patients can also be instructed to cleanse small wounds and blisters themselves. Hands should be thoroughly washed before and after contact with a patient, regardless of whether gloves are worn.(6,9)

   Masks, eyewear, and gowns are recommended in situations where splashes of blood and other body fluids are likely to occur. Minor lacerations or small amounts of blood do not warrant such barriers, but they are recommended for massive arterial hemorrhage. In the unlikely case of massive bleeding in the field, I recommend wearing gloves, glasses, and clothing, and washing the clothing. The underlying concept is to prevent blood to body fluid contact. (6,9)

2. All instruments, including tweezers and scissors, should be boiled and/or thoroughly cleaned with zephrin or providone-iodine, both before and after use. HIV is a fragile virus, easily destroyed by cleaning environmental surfaces. (3)

3. Special care should be taken to avoid scratches, punctures, and needlestick injuries from contaminated needles or other sharp objects. Needlestick injuries are common occurrences in health care settings. CDC reports that 80% of injuries exposing health care workers to bloodborne illness result from needlesticks. The anakit is the only injectable medication in NOLS first aid kits (exception being kits used for Denali and India Mountaineering courses, 1997). Used anakits should be taped shut and labeled. Needlestick injuries should be reported immediately to the Safety and Training Department and documented on a field safety report. (6,9)

4. Items such as gloves and bandages that are contaminated should be placed in sealed plastic bags and labeled "biohazard" or incinerated in a hot fire. (6,9)

5. Mouth-to-mouth pulmonary resuscitation has never been shown to be a method by which HIV can be transmitted. It has been recommended that a pocket mask be available to individuals who work in the health care profession and who may need to provide pulmonary resuscitation frequently. This recommendation is not based solely on the fear of transmission of AIDS, but rather on the avoidance of transmission of common orally transmitted diseases.

6. Sharing of toothbrushes, razors, etc., is not hygienic under normal circumstances. Considering HBV and HIV risks, they are unacceptable. (1,2)

7. In addition to abstaining from intravenous drug use, the Public Health Service recommends that the following steps be taken to prevent the spread of AIDS:
   - Do not have sexual contact with persons known to have AIDS.
   - Do not have sexual contact with multiple partners or with persons who have had multiple partners.
   - If having sexual contact, use a latex condom and the spermicide nonoxynol-9
   - Do not use oil or petroleum based lubricants.
   - Engaging in unprotected sex is unsafe. Condoms reduce the risk of transmission during sex but are not 100% reliable. (2)

SHOULD WE ADD A CLASS ON AIDS TO OUR CURRICULUM?

A discussion on AIDS precautions is appropriate for a class on bleeding and soft tissue injury and should be part of those topics. Otherwise, I do not see a need and consider it inappropriate to add such a topic to the curriculum and not address other health issues with social and ethical as well as medical dimensions such as heart disease, pregnancy and birth control, cancer, and nutrition. There is a wealth of curriculum information available on this topic.

HOW DO THE UPDATED REGULATIONS FROM OSHA ON BLOODBORNE PATHOGENS AFFECT US?

The new regulations require employers to provide education on the epidemiology and symptoms of bloodborne disease, an explanation of modes of transmission of bloodborne pathogens, an explanation of the employer's exposure control plan, explanation of the use of personal protective gear, HBV vaccination information, and post-exposure follow-up. They also require that personal protective equipment be provided, as well as HBV vaccinations.

It is our position that we have an educational program via the WFR and WEMT courses as well as newsletter articles where the educational aspects of these regulations are addressed. Gloves are provided in first aid kits. We are not providing HBV vaccinations, as we consider the risk of exposure low and do not think the regulations apply to outdoor educators, despite our requirement for first aid training.

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HEPATITIS B AND WORKING AT NOLS

All staff and students who render first aid either to a student, staff or another person as a collateral duty and who think they have been exposed to blood or other body fluids shall be transported to a medical facility capable of treating and preventing Hepatitis B within 24 hours. Staff who work in remote areas where: (a) risk of exposure is high and b) medical facilities may be more that 24 hours away are offered the Hepatitis B vaccination series.

Pocket masks or face shields will be included in all NOLS first aid kits. While it is not possible to monitor the location of masks or face shields at all times, it is expected that staff have quick access to one at all times.

Emergency

Boojum Institute for Experiential Education

Emergency Action Plan

The is the complete Boojum Institute Emergency Action Plan. An abbreviated version is included in the Field Manual.

PURPOSE

The purpose of this plan is to outline the actions to be taken in case of serious accidents, incidents, or other emergencies involving Boojum employees, participants, visitors, or property.

The primary considerations of Boojum Institute's response to emergencies is prompt action to ensure that the problem is not compounded and to maintain compassion in dealing with people under trying circumstances. This plan is a guide and must remain flexible. These procedures are not substitutes for common sense, compassion, and wisdom of those responsible for applying them.

Our response to emergencies will seek to:

1. Contain the extent of injury or damage
2. Notify appropriate people
3. Prevent recurrences
4. Limit negative publicity

DEFINITION OF AN EMERGENCY

An emergency is defined as any serious incident or situation that significantly threatens a Boojum Institute employee, participant, or guest. This includes extensive property damage. Examples include:

1. A serious accident, incident, or fatality.
2. A situation that has potential of endangering the group.
3. An illness or injury leading to the removal of a participant or Field Team member from the group.
4. A serious personal or behavioral problem causing a student to leave the course.
5. A situation that could cause Boojum serious public relations problems.
6. A logistical situation that strands a group or Field Team on the road or in a field setting.
7. Unscheduled loss of contact with a participant in the field if it extends beyond 6 hours.

COMMUNICATIONS FLOW

1. Field Staff notifies the appropriate Course Director
2. Course Director notifies Program Director
3. Program Director notifies Executive Director and other staff (as appropriate)
4. Executive Director notifies President of Board
5. President of Board notifies RMC Chair
6. RMC Chair notifies Medical Officer and all other Board Members

All staff and board members involved in the emergency response need to do the following:

1. Communicate information promptly, accurately, and completely at each communication link.
2. Keep a brief communication log outlining the date, time, contact, subject, action, responsibility, and phone number of each communication. It is important to stick to facts in your communication log; avoid speculation or opinion in this written record.
3. Restrict external (non-Boojum) communication about the emergency to those parties vital to the emergency response, and refer any outside inquiries (e.g., media) to the Executive Director or President of the Board.

IMPLEMENTING THE PLAN

This plan outlines actions and communications to take place at the following levels:

1. Boojum Field Staff: Stabilize the situation and call for help.
   A. Attend to the well-being of injured or ill persons.
   B. Limit the possibilities for further injury to people or extensive property damage.
   C. Notify appropriate Boojum Institute supervisor or next in command and activate Emergency Medical System.
2. Boojum Administrative/Office/Facility Staff: Take the call and act as communications relay.
3. Program Director: Acts as Emergency Coordinator, coordinating the local emergency response and gathering complete documentation regarding the incident. Notifies the Executive Director.
4. Executive Director: Primary media spokesperson. Brings in the President of the Board. Coordinates Internal Critical Incident Investigation (if necessary).
5. President of Board: Initiates full Emergency Response Team.
6. The Emergency Response Team: Designated to respond to emergencies during the first 24 to 36 hours. The team will be selected and given assignments for:
   A. Gathering more complete information about the emergency
   B. Initiating contact between Boojum and client/next of kin (NOK)
   C. Dealing with the media
   D. Initiating contact between Boojum and insurance carrier/legal counsel

7. RMC Chair: Coordinates External Critical Incident Investigation (as requested by the President).

Not all emergencies will require the full implementation of this plan. Implementation is appropriate when:

1. Adequate response to the emergency is beyond the resources of the Field Staff.
2. When the emergency involves death, serious injury, or serious potential for either.
3. When the media is, or is expected to be, involved in reporting the emergency.

When in doubt as to whether a situation warrants this level of response, start the notification sequence and get advice from other staff.

INITIAL EMERGENCY RESPONSE IN THE FIELD

Alert Procedures

Time frame

1. In medical or related emergencies or if the situation is loss of contact with a group or individual that continues for more than 6 hours, alert Boojum as soon as possible.
2. If the situation involves lost person(s) who are believed to have left willfully (run away or deliberately gotten lost) initiate alert procedures as soon as obvious efforts to locate them have been exhausted. This time frame should never exceed the 6 hour time frame listed above and usually will be much less.

Procedure

Refer to Notification Sequence.

1. If it is between 8 a.m. and 4 p.m. PST, begin by trying to contact the Boojum Facility.
2. If outside normal business hours or if this attempt is not successful, begin the notification sequence, calling until contact is made.

Note: If at any point managing the situation necessitates accessing outside assistance prior to notifying Boojum, do so. Be sure then to continue trying to contact Boojum at the earliest opportunity.

Frontcountry (one hour or less from definitive medical care)

1. Assess and stabilize the situation. Provide immediate pre-hospital emergency care to any victims according to the accepted procedures for the level of training you have. Secure and protect other participants. Initiate search procedures if emergency is lost person(s).
2. Develop a plan. Begin a Boojum Accident/Incident Report.
3. If injuries allow, evacuate using a Boojum vehicle or other available vehicle. If injuries do not allow movement of victim, use the nearest telephone or radio to activate the local Emergency Medical System (EMS). Send the most responsible person available. Designate someone to direct incoming emergency vehicles. Ensure that victim's medical history form is available to EMS personnel.
4. Obtain written accounts from all witnesses, participants, staff, and guests.

5. Protect the emergency site from contamination, so that the incident investigation can get the best possible data. If a camera is available, take photographs showing both details and the "whole scene."

6. Remember that everyone should keep communications with those outside of Boojum and the client limited to the medical, search and rescue, and law enforcement agencies that are directly involved with addressing the needs of the situation. Refer all media inquires to the Boojum Office.

Backcountry (one hour or more from definitive medical care)

1. Assess and stabilize the situation. Provide immediate pre-hospital emergency care to any victims according to the accepted procedures for the level of training you have. The Boojum Standard of Care follows the *Wilderness Medical Society Practice Guidelines for Wilderness Emergency Care*, edited by William Forgey. Secure and protect other participants.

2. Develop a plan. Begin a written record on Boojum Accident/Incident Report.

3. If the emergency is a lost person, initiate search procedures as soon as the situation is discovered. If the participant has been missing for 8 hours, send a runner to contact the Course Director or the Boojum Office. Outside contacts should be made sooner if circumstances warrant greater concern.

4. Complete a secondary assessment, and write a SOAP note as found on page 2 of the Boojum Accident/Incident Report. (This SOAP note will provide a written record of the *S*ubjective, *O*bjective, *A*ssessment, and *P*lanning stages of the incident and subsequent action taken). Make a plan for rescue and evacuation. Make an alternate plan, especially if requesting a helicopter or other outside assistance. Do not assume outside assistance; have a backup plan for contact and evacuation.

5. Send a runner party or, if practical, an evacuation team. This group must include a Boojum Instructor or responsible adult. If possible, a runner party should include four people. Address the following issues:

   A. Closest (in time) emergency vehicle or phone is determined and route to this point marked on a map.

   B. Radio contact protocols and frequencies are reviewed.

   C. Whom to contact, what to ask for is decided. Make sure you know when and how the next emergency contact will occur or ETA before breaking contact with EMS personnel.

   D. Role of runner party after contact is decided. Where and when should they reunite with the group?

   E. Runner party carries the following:

      - Full Emergency Report (this must include all the information on the Accident Report and names of staff and number of students with patient; time, temp, precipitation, and wind at site upon departure; a map marked with the location of the patient, or the pertinent written information such as latitude/longitude, local name, township, range, section, names of nearby landmarks)
      - Student Medical History Form (if evacuating)
      - All relevant maps
      - Emergency Call Guide

- Any items needed to insure that the runner party is self-sufficient (e.g., sufficient clothing, food, FAK, shelter, money, etc.)
- If you send an advance runner party to activate EMS and have them waiting for the evacuation team at the trailhead, be sure the runner party knows what route the evacuation team intends to take

FATALITIES IN THE FIELD

In the event of a fatality, the primary job of Field Staff is to ensure the mental, emotional, and physical well-being of the rest of the participants. Do not disturb the scene of the incident or move the body. Keep someone in the vicinity of the body. If this is not possible because of risk management reasons, the body should be secured in place and the location carefully documented. All this will be extremely difficult and require the utmost in support and cooperation between Field Staff and participants. Send for assistance (sticking to the facts only and avoiding any admission of guilt), and wait for legal authority before moving the body. This will normally be the sheriff or coroner. Field Staff should also contact Boojum and direct all media inquiries to the Boojum Office.

EVACUATION

In this area of risk management more than any other, Boojum relies on the training and judgment of Field Staff.

1. A staff person capable of handling medical emergencies must accompany student evacuations whenever possible.
2. Instructors must use their judgment and training to decide whether to evacuate most injuries or illnesses. However, the following conditions require an evacuation:
   A. Concussion (loss of consciousness or amnesia)
   B. Suspected spine injury
   C. Use of epinephrine
   D. Near drowning (use of rescue breathing)
   E. Lightning strike (involving burns, cessation of breathing, cardiac arrest, change in level of consciousness)
3. When choosing the type of evacuation, base your decision on the following information:
   A. Patient condition
      - Are they in need of immediate medical attention?
      - Is their condition rapidly deteriorating?
      - Would a ground evacuation aggravate delicate injuries such as spinal column damage?
   B. Number and experience of potential rescuers
      - Are there enough people available to carry a litter?
      - What are the physical abilities of those folks?
   C. Resources
      - Would an improvised litter suffice to carry the patient?
      - What is the availability of a backboard or backpacks for making a litter?
      - Are other materials available with which to improvise?

D. Terrain and Weather

- What is the condition of the trail (if any) or terrain?
- How far from the nearest road are you?
- How far from the nearest landing zone are you?
- How difficult will it be for a helicopter to get into the area?
- Is the weather getting worse? (Most helicopters will not fly in a remote area in poor weather.)

Some evacuation options include:

1. Patient walks out escorted by a self-sufficient team of three people (at least one Instructor or chaperone)
2. Patient walks out escorted by the whole group in case the patient may lose the ability to walk.
3. Patient is carried out in a litter by group or by rescue team.
4. Patient is carried to helicopter landing site and evacuated from there.

HELICOPTER EVACUATION

For certain medical emergencies, a helicopter may be necessary.

Decision-Making Criteria

Helicopter transport must be used only in situations where ground transport would be too slow or dangerous for the patient. Examples of emergencies in which a helicopter evacuation should be considered include:

- Severe bleeding and large open wounds
- Head, neck or back injuries
- Large fractures (e.g., femur or pelvis)
- Small fractures where distal circulation or nerve function is notably impaired and cannot be restored
- Severe burns
- All genuine shock patients
- Acute abdominal patients
- All patients undergoing severe cardiac or respiratory distress

Helicopter Procedures

Once it has been decided that a helicopter evacuation is necessary, a landing zone must be found and a basecamp set up, and the party going for help must have the exact location of the patient and the landing zone. Decide on a plan for evacuation before you go for help, so that all relevant information can be given.

1. Selecting and setting up the landing zone.

   A. Consider the approach. Helicopters like to land and take off into the wind. The landing zone must be situated so that the helicopter has a landing path and a takeoff path if possible (not in the bottom of a box canyon or up against large cliffs).

B. An area at least 100 feet by 100 feet that is firm, flat, and clear of all obstructions and any loose materials (i.e., brush, posts, stumps, and large rocks) is preferable.

C. It must be far enough away (at least 200 feet) from the basecamp (tents and kitchen area) so that those objects do not get picked up or blown over in the rotor wash.

2. Risk management around helicopters.

   Helicopters are very dangerous because of the spinning rotor blades and the winds (called rotor wash) created by those blades (up to 120 mph). These winds can tumble full packs and push people over. Debris from the rotor wash can injure the eyes and, if any fires are present, can blow hot embers into people, tents, and into dry brush, creating an uncontrolled fire.

   A. Keep all spectators at least 200 feet from the landing zone. Before the helicopter arrives, designate who will carry and load the litter into the helicopter if necessary. Brief those people on how to conduct themselves near the helicopter when it arrives.

   B. Only one person should guide the pilot. She or he should wear eye protection and stand with back to the wind and arms raised to indicate wind direction.

   C. Do not approach a helicopter until the pilot signals you to do so, and then only approach from the front and stay low. Never approach a helicopter from the rear or from uphill.

   D. Keep all objects away from the landing zone to prevent them from being sucked up into the rotors.

   E. Follow instructions of the pilots and air crew explicitly as related to your conduct near the aircraft.

SEARCH

If a situation involves a lost individual, the following procedures apply.

1. Quickly gather all available information on the lost person. Pertinent information may then be given to searchers. Write it down. This is critical!

   Determine:

   A. Point last seen (PLS) and the time. Mark your map with the PLS. Also, if possible, protect the PLS or any other location that may include substantial clues (i.e., clear tracks).

   B. What they were wearing.

   C. Food and equipment missing persons are known to have had. (Check their packs.)

   D. If they mentioned their plans.

   E. How clearly group plans were communicated.

   F. When and where they were supposed to meet. If they could be taking a break.

   G. If there were any confusing trail junctions.

   H. What type of footwear they had on. (Name brands can be quite helpful when tracking; check to see if anyone else has the identical brand and style of sole for comparison).

Also consider the following:

I. Time of day.

J. Health of lost person.

K. Weather conditions.

L. Immediate dangers to the lost person.

M. Possible motive for leaving.

2. After considering all of the above information, formulate a plan. Keep a written record of the plan, and make sure all searchers clearly understand the plan and their personal roles.

   The plan should include:

   A. Determine the area to be searched.

   B. Conduct a preliminary briefing.

   C. Divide available people into search teams, and assign search areas. Designate team leaders. Ensure and maintain direct control of students by Boojum Staff or client chaperones wherever possible.

   D. Brief team leaders regarding search details.

   E. Set up communications procedures.

   F. Monitor from central location.

   G. Designate a time and place for regrouping.

3. Quickly set up a "confinement" system to keep the person within a finite search area. Use vehicles to move search teams if practical and available. Leave notes at trail intersections, or station people with bonfires at prominent points. Working quickly outward from the PLS, confine a large area (6 miles or more radius from PLS).

4. Divide the search area into segments defined by topographic features such as rivers or ridges. Look for clues in likely places. Avoid grid searches; statistics indicate that they are ineffective. Mark a map with notes on areas checked and thoroughness of the searches. Do not forget that lost individuals may wander back into areas already searched.

5. If the above measures have been taken and the missing person(s) are not found, assume the situation calls for more intensive search measures. At this time send for outside assistance. A person who is not found in a well-organized hasty search is probably either quite far away, injured and unable to respond, or purposefully leaving the group.

NOTIFICATION SEQUENCE

Remember, if in doubt, call!

Begin at the top of the list, and continue down until the first contact is made. Once successful contact is made, the person notified should take responsibility for notifying others on the list if the situation warrants additional response.

During business hours, Field Staff should first try to contact the Program Director or Executive Director at the Boojum Office or Facility.

Boojum Office	phone number
Boojum Facility	phone number
Program Director	phone number
Executive Director	phone number
President, BoD	phone number
Chair, RMC	phone number

Refer to the Boojum Course Area Emergency Call Guide for area-specific emergency numbers.

Camp High Rocks

Notification of Next of Kin

Date _____

Name of deceased: _____

Address: _____
street number city state zip

Parent/Legal Guardian: _____

Address: _____
street number city state zip

Telephone Number: (work) _____ (home) _____

Incident: (describe in detail—the time, location, witnesses, event)

First call: (describe in detail when made, what told, parent response)

Further contact: (describe in detail when made, what told, parent response, action taken)

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The Venture Program at University of North Carolina

Notification of Next of Kin

All Venture Program information taken from the Venture Staff Manual with special thanks to L.C. Gidaz, Dee Edelman and Sandy Kohn.

In any death occurring off campus, it is the responsibility of the local police agency and/or hospital involved to notify the next of kin. It may be possible for the Vice Chancellor for Student Affairs, in consultation with these agencies, to make the initial contact with the next of kin. In any case, it is probably appropriate for the Vice Chancellor for Student Affairs (or her/his designate) to contact the family to offer additional information and support.

This is the most crucial of the immediate follow-up procedures after a serious injury or fatal accident; and also, the most distressing both to contemplate and to do. Each occurrence will have seemingly unique circumstances, and the following general guidelines offer suggestions.

1. Sensitivity to the feelings of the family is the foremost consideration. Think through what you will say before you make contact. Have your facts organized and accurate, and be sure to convey whatever personal condolences might be appropriate. Remember that the next of kin have a right to all factual information pertaining to a serious accident; however, as the initial notification will be received with surprise and shock, don't expect to be able to convey many details until a later date. Be conscious of the timing of your call, and try to think through what the recipient might be doing—working, eating, sleeping, etc. Try to anticipate possible responses, and prepare yourself accordingly.
2. Promptness is the next rule-of-thumb; delays will almost certainly lead to suspicions or other negative feelings.
3. Consider inviting a family representative to come to the University at the University's expense (requires advance approval from the Vice Chancellor for Business Affairs).

Emergency contact names and numbers are provided by Venture to Campus Police for off-campus Venture trips. Emergency contacts are also available from the Venture Trip Registration Data Base on the Venture Macintosh computer network. Venture Registration Cards located at the Venture secretary's desk also contains this info.

NOLS Rocky Mountain Branch

Evacuation Guidelines 1995

SUGGESTIONS FOR ORGANIZING EVACUATIONS IN THE FIELD

I. Assess the patient, perform the necessary first aid, control the scene.

II. At this point in any evacuation, many things may happen simultaneously. The following is an outline, not necessarily a sequential list.

A. **Document:** Record the assessment, mechanism of injury (MOI), first aid given, and changes in the patient's condition on the Field Evacuation Report.

1. Age and sex
2. Chief complaint
3. History of the illness or injury and MOI
4. Vital signs (repeated if necessary)
5. Physical exam findings/appearance of the patient
6. Past medical history
7. Allergies/medications
8. Treatment
9. Changes in patient's condition

B. **Organize:** Assume leadership and delegate responsibilities. Keep everyone gainfully occupied. Possibilities include:

1. Use the situation as an educational opportunity if it's not serious.
2. Cook food and prepare hot drinks.
3. Prepare evacuee's pack.
4. Prepare evacuators' packs.
5. Build a litter.
6. Scout and break trail up ahead.
7. Find and mark landing site (helicopter evacuation); pack if necessary.

C. **Determine:** the urgency of an evacuation:

1. Consider the
   a. Severity of medical problem
   b. Distance to roadhead
   c. Difficulty of terrain
   d. Time to a hospital
   e. Weather
   f. Message to horsepackers or snowmobilers
   g. Transportation schedule
   h. Mechanical failures
   i. Suitability of landing site

2. Determine what type of evacuation is required:
    a. The patient is ambulatory: walking, skiing
    b. The group can carry the patient: litter, sled litter
    c. Outside ground help is available: horsepacker, snowmobile, boat
    d. Outside air evac is available: helicopter/fixed wing
    e. A combination of the above methods is being used

D. **Message:** Determine if a message to the Rocky Mountain Branch is necessary.

1. Radio
    a. Generally, radio use is appropriate only for life or limb threatening medical problems.
    b. Determine the longitude and latitude coordinates.
    c. Follow the direction sheets carefully.
    d. Rehearse your message.
    e. Delegate radio communication to one person from beginning to end.
    f. Practice with the radio before going into the field.
2. Runners
    a. The ideal minimum group size for an evacuation or runner party is four; small enough to be efficient, large enough to allow two to remain together, if someone in the party is incapacitated, while two continue on to the road. NOLS courses generally have the people available for a four-person evacuation team. The choice of a smaller group may be appropriate in some situations; however, careful thought should be given to the safety, the example, and the opportunity for student participation inherent in this decision. An instructor should lead the group, if possible.

Message Contents

1. Written instructions should accompany the group and include:
    a. NOLS Field Evacuation Report form (yellow and pink copy; white copy stays in field) and any other pertinent information
    b. any necessary additional documentation on the evacuation plan such as:
        - timetable
        - backup plan
        - travel routes
    c. marked maps showing:
        - location of accident
        - present location of course and of victim
        - route out of mountains and roadhead destination
    d. any special requests (doctor, stokes litter, more people to help carry a litter, etc.)
    e. plans for runners returning to course
2. Always have a written backup plan, and inform NOLS of that plan.
3. Prepare the evacuation and/or runner party for extenuating circumstances, to survive the night out: food, stove, shelter, extra clothing or sleeping bags.

III. **At the Roadhead:**

A. Report evacuations to the Rocky Mountain Branch from 8 a.m. to midnight at 1-800-323-8221 (1-800-EC-EVAC-1). Calls on the 800# are automatically transferred to the on-duty Evacuation Coordinator (EC) between midnight and 8 a.m.; however, have the EC's home phone number handy, in case this system fails. Alternate numbers between 8 a.m. and 5 p.m. Monday–Friday are the NOLS Admissions Office at 307-332-6973; NOLS Headquarters at 307-332-8800; or the Rocky Mountain Branch Administrative Office at 307-332-4784.

Other alternate numbers are: Area Code 307

John Kanengieter	332-7214	Don Sherrill	332-7682
Willy Cunningham	332-4480	Michael Lindsey	332-6824
Ed Lee	332-7682	Tod Schimelpfenig	332-4924

B. Call collect. Identify your call as a "Course Emergency." Provide the number you are calling from, and remain by the phone for a return call.

C. Stay with the evacuee until he or she is turned over to NOLS. The completed Field Evacuation Report Form and any further documentation should be placed in a sealed envelope and should accompany the evacuee.

D. All vehicles used during evacuations must be NOLS owned and authorized. Instructors may have to hitchhike to report an evacuation, but AVOID hitchhiking with an evacuee.

E. Take plenty of quarters for phone calls. If you have any expenses, save your receipts in order to be reimbursed.

IV. **In the Event of a Helicopter Evacuation:**

A. Mark your location with tightly anchored brightly colored markings. Yellow, red, blue and orange are good signal colors, especially if they are Day-Glo. Dull colors are not very useful. Background contrast is important. Use your signal mirror.

B. The pilot may choose his own landing site. Be prepared to move the victim to the helicopter after the pilot lands. Landing zones that are 60 feet in diameter are best. Think about a football field sized space. Avoid holes under ridges, which can create tricky winds for the pilot. Clear loose objects from the landing zone.

C. Numbers of people on the landing zone will confuse the pilot. One person on the ground should use proper ground-to-air signals. The most important is, "Land here; my back is into the wind."

Helicopter Hand Signals:

CLEAR TO START ENGINE: Make a circular motion above head with right arm.
HOLD ON GROUND: Extend arms out at 45, thumbs pointing downward.
MOVE UPWARD: Arms extended sweeping up.
MOVE DOWNWARD: Arms extended sweeping downward.
HOLD-HOVER: Arms extended with clenched fists.
CLEAR TO TAKE OFF: Extend both arms above head, in direction of take-off.
LAND HERE; MY BACK IS INTO THE WIND: Extend arms toward landing area with wind at your back.
MOVE FORWARD: Extend arms forward, and wave helicopter toward you.

The crew gathers weather information and calculates pounds of cargo they can carry. It helps if they know the weight of the evacuee. The evacuee's equipment may be a low-priority cargo.

D. Avoid becoming another evacuee:

1. Approach a helicopter only when the pilot motions you to do so.
2. Do not walk in front of a helicopter or approach it from uphill.
3. Be careful on snow not to slide toward the helicopter accidentally.
4. Stay low whenever you are around the rotors.
5. Control people on the landing zone.

Helicopters may not make it for one reason or another. Always have an alternate plan, and inform NOLS accordingly.

V. **Comments:**

A. **Decision-Making:** When determining the type of evacuation, consider: the urgency of the medical situation, distance to the roadhead, difficulty of the terrain, and the group's physical strength, technical abilities, and experience. Consider also the weather, communication possibilities, outside assistance, the transportation and recreation schedule, and the suitability of landing sites. Give each of these points conscious thought. Verbally examine the "why's" of each decision. It will facilitate thorough planning and enhance understanding of the plan for the entire team.

A thorough patient assessment is essential to making a wise decision regarding method and urgency of evacuation.

B. **Communication:** Assume and act as if the radio will not work. An inability to communicate with air traffic, a mishandled message, or bad weather can thwart a radio evacuation.

When the instructors can't verbally communicate with each other, a clear understanding of expectations is vital. Messages delivered on foot and by radio are generally one-way, so they must be accurate, concise, and complete. Written back-up plans on when a contingency will be initiated (freak time) serve to help staff know what to expect from each other in the event that plans change.

C. **Pre-Plans:** Think through the scenario from camp to roadhead and back to the course, including contingencies for the inevitable changes. Details are important; small omissions in planning can have great consequences and tend to multiply over time.

Organization and travel during evacuations is often slower than anticipated, and plans must be laid for altered timetables or equipment failure. Always plan for things to go slower.

Be familiar with evacuation assets before venturing into the field. The more you know about available resources, the wiser your choices will be during an evacuation. Look over your route, and consider the possibilities for evacuation. Where are you farthest from a road? When do you cross obstacles such as passes or rivers that may impede evacuations? What unusual roadheads or shortcuts may be viable alternatives, and which maps do you need to find them? Will extreme weather change your options? The route planners and course coordinators at the Branch will have advice on specific evacuation scenarios and can provide the experience gained with other courses.

D. **Debriefing:** Consider a debriefing of the evacuation, both as a learning tool and as an opportunity to manage stress. Chapter 21 of the NOLS Wilderness First Aid Text addresses stress debriefings.

Make no refund statements.

National Outdoor Leadership School

Evacuation Procedures

REPORT PROCEDURES

Fill out this Field Evacuation Report completely. Course Leader keeps white copy for course log. Evacuation Team Leader brings out pink and yellow copies. These should be turned over only to other authorized NOLS personnel, i.e., driver or horse packer. Turn in pink and yellow copies to Evacuation Coordinator upon arrival in Lander. Do not send pink and yellow copies with helicopter pilot, unless helicopter is flying to Lander. Copy information for pilot/medic, if necessary.

EMERGENCY PHONE INSTRUCTIONS

A. Know location of nearest phone, and take plenty of quarters.

B. Know where to call first:

1. Monday through Friday, 24 hours a day at 1-800-EC-EVAC-1 (1-800-323-8221).
2. If no answer above after several tries, call scheduled Evacuation Coordinator at home (see list in Emergency Procedures Packet).
3. If unable to reach scheduled Evacuation Coordinator, call any Coordinator at home (see Evacuation Coordinator Schedule).

C. Identify your calls as "NOLS Emergency," and ask for an Evacuation Coordinator to help you.

D. Be prepared to give your name, phone number, and exact location you are calling from to the person receiving your call.

E. Check your phone's capacity to receive calls. If it will, stay by the phone until an Evacuation Coordinator returns your call. If not, obtain Evacuation Coordinator's phone number and call back.

F. If an Evacuation Coordinator does not return your call within 20 minutes, phone again.

NOLS BUSINESS PHONE NUMBERS	
Noble Hotel	1-800-EC-EVAC-1
International HQ Office	1-307-332-6973
Rocky Mountain Branch	1-307-332-4784
Three Peaks Ranch	1-307-537-5236

THE EVACUATION COORDINATOR WILL NEED THE FOLLOWING INFORMATION

A. Your name, location, and phone number

B. Name of evacuee, sex, and age

C. Course/Section and start date

D. Course Leader and Instructor names

E. Description of problem and condition of evacuee

F. Location of evacuee:

   1. Quad, number of students and instructors at location, and latitude and longitude

G. Location of others on course:

   1. Quad, number of students and of instructors at location, and latitude and longitude

H. Driver requested?

I. Other support:

   1. Medical equipment or personnel

   2. Horse

   3. Motorized vehicles (e.g., boat, snow machine, helicopter)

J. Is evacuation from wilderness area?

K. Pickup time

L. Backup plans

NOLS FIELD EVACUATION REPORT

Name of Evacuee _____ Evacuation Date _____
Course/Section/Start Date _____ Course Leader _____
Evac Team Leader _____

Check all that apply:	Field Evac _____		Medical Evac _____	
	In-town Evac _____		Non-Medical Evac _____	

Location of Evacuee (latitude/longitude, common name, TRS) _____

Accident Location _____

Patient Information

Age _____ Sex _____
Chief Complaint (PQRST) _____

Date and Time of Incident _____
History of Present Illness/MOI _____

Vital Signs (quantity and quality)

Time	LOC	Pulse	RR	BP	T°	CRT	SCTM	Pupils

Physical Findings/Appearance _____

Past History _____
Allergies _____
Medications _____
Emergency Care Rendered/Changes in Patient's Condition _____

Details of Evac Plan (timetable, backup, pickup point) _____

Course Leader Signature _____
Date _____ Time _____

The Biking Expedition

Missing Person Report Form

(Use the checklist on the other side to help rescue personnel and the TBE office in your search for a missing person.)

Trip: _____

Student name: _____ Age: _____

Date student was lost _____ Time _____ : _____ AM/PM

Date student was found _____ Time _____ : _____ AM/PM

Where was the group when student became lost? _____

_____

Weather at the time student was first missing:

Temp ——— Precipitation (circle) Rain Snow None

Wind (mph) _____ Visibility _____ (feet or miles)

Surface conditions (circle) wet, dry, ruts, single track, tar, gravel

Weather at the time student was found:

Temp _____ Precipitation (circle) Rain Snow None

Wind (mph) _____ Visibility _____ (feet or miles)

Surface conditions (circle) wet, dry, ruts, single track, tar, gravel

_____

Was the child injured? ___ YES ___ NO If yes, fill out an incident report *and attach this report to it.*

If yes, please describe the emotional state of the child prior to him/her leaving. Do you know the reason he/she left?

_____

_____

_____

_____

_____

_____

If the child did not leave intentionally, describe how the child became lost.

_____

_____

_____

_____

_____

_____

Describe your actions in trying to find the child.

_____

_____

_____

_____

_____

_____

Did you notify the TBE office? ___ YES ___ NO

If yes, at what date and time did you call? _____ AM / PM

Your name:_____ Date:_____

Checklist for information to give to rescue personnel and TBE Office:

Name of child _____

Time and place the child was last seen: _____

1. Describe what the child was doing just prior to and during the time he/she got lost:

2. Describe what the child was wearing: Clothing _____ Color

   pants / loose shorts / tights / lycra shorts / other:
   T-shirt / long-sleeved shirt / rain jacket / fleece / other:
   Type of Shoes: Color:
   Helmet? Color:
   Hat? Color:

   Other information about clothing:

3. What direction was the child heading?

4. Does the child have any medical conditions?

5. When and what did the child last eat?

6. What was his/her emotional state?

7. What was his/her physical condition?

8. Does he/she have cash with him/her?

9. What are his/her likely actions? (i.e., call TBE, campground, etc.)

10. Is there someone in the area that you think this child would contact?

After the child is found, complete the appropriate form.

Camp High Rocks

First Aid Kit Policy

LOCATIONS

Infirmary

A. All supplies for first aid kits are kept in the infirmary. First aid kits are checked and re-supplied by the camp nurse at the beginning of each summer and on the return of the kit from any out-of-camp trip.

Cabins

A. Each cabin has a primary care first aid kit, which includes a pocket mask, gloves, and gauze dressings. It is the cabin counselor's responsibility to notify the nurse whenever one of these kits is used.
B. Cabin first aid kits are to be used only when preliminary care is prudent before the nurse can arrive. Such situations might include respiratory or cardiac arrest, or severe bleeding.

Main Camp Activity Areas

A. In-camp activity areas include swimming, canoeing, climbing, tennis/athletics, crafts, riflery, and archery. These activity areas have direct access to primary care first aid kits, which include pocket masks, gloves, and gauze dressings. It is the activity head's responsibility to notify the nurse whenever one of these kits is used.
B. In-camp first aid kits are to be used only when preliminary care is prudent before the nurse can arrive. Such situations might include respiratory or cardiac arrest, or severe bleeding.

Camp Property Activity Areas

A. Camp property activity areas include hiking, climbing, and horseback riding. These activity areas have complete "trip first aid kits," which include the items listed in the Trip First Aid Kit Inventory Form.
B. A first aid kit accompanies every trip out of main camp (i.e., trail rides, hikes on camp property trails, climbs at Cathedral Rocks).
C. Use of these first aid kits should follow standard WFR or appropriate First Aid protocols, depending on accompanying staff.
D. It is the activity head's responsibility to notify the nurse of any use of these first aid kits and to request for the camp nurse to re-supply the kit.

Trips

A. Trip first aid kits will accompany all out-of camp trips with campers. Trip first aid kits possess materials described by the First Aid Kit Inventory Form. Check out/in procedures are described on the next page.

Vehicles

A. Vehicles that transport campers contain primary-care first aid kits, which include pocket masks, gloves, and gauze dressings. It is the driver's responsibility to notify the nurse whenever one of these kits is used. (All trips with campers should also have trip first aid kits; vehicle first aids kits are used primarily for drivers of non-camper trips.)

CHECK-OUT/IN PROCEDURES

1. Trip first aid kits will accompany all trips off of camp property. Check-out of kits should be done by the following procedure:
   a. camper list created for trip and given to camp nurse
   b. camp nurse reviews list for medical needs of campers and staff
   c. camp nurse prepares first aid kit for trip, including appropriate medications, ana-guard kits, and inhalers
   d. camp nurse includes copies of appropriate camper medical forms inside first aid kit
   e. camp nurse discusses first aid additions with trip leaders
   f. trip leaders note which first aid kit taken on trip list form
2. Check-in of first aid kits should be done by the following procedure:
   a. during trip, leaders note type and amount of first aid supplies used
   b. upon return to camp, trip leaders turn in Trip Report Form to office and First Aid Kit Check-In Form with accompanying first aid kit to infirmary. Any incident reports are also reviewed by camp nurse and/or camp administration and then kept on file
   c. camp nurse reviews Check-In Form and re-supplies kit with necessary items
   d. camp nurse initials Check-In Form and places in infirmary file

Camp High Rocks

First Aid Kit Inventory

CABIN FIRST AID KITS

1. Cabin kits are located in each cabin side.
2. Inventory includes: gloves
   gauze
3. One cabin side will also have a pocket mask.

ACTIVITY AREA FIRST AID KITS WITHIN MAIN CAMP

4. Activity area kits are located in the following areas:
   a. swimming
   b. canoeing
   c. climbing
   d. craft shop
   e. tennis courts
   f. barn
5. Inventory includes: gloves
   gauze
   pocket mask
6. Kits will be kept in places designated by activity head and known by activity staff.

ACTIVITY AREA FIRST AID KITS OUTSIDE OF MAIN CAMP

7. Activity area kits for out of main camp use will be kept in the following areas:
   a. hiking (2)
   b. mountain biking (1)
   c. barn (2)
8. Inventory will be as described on Trip First Aid Kit Inventory Form.
9. Kits will accompany any on-property/out-of-main-camp trip that these activity areas take with campers.

TRIP FIRST AID KITS

10. Trip first aid kits will be kept in the infirmary. (Suggested number to have ready at the start of each session is around 10.)
11. Inventory is described on the Trip First Aid Kit Inventory Form.
12. Kits will accompany any out-of-camp trip with campers.

13. Use is described in the First Aid Kit Policy.

FIRST AID KIT INVENTORY—TRIP KITS

The following are the preferred items and amounts for each first aid kit. Individual kits may vary.

Outer pocket:	
gloves	10 pairs
pocket mask	1
ana-guard kits	2
camp #/ 2 quarters	in small bag
SOAP/ Missing Person	in large bag
camper medical forms	in large bag
Inside but separate:	
Sam splint	1
ice compress	1
duct tape	medium size roll
extra bags	1 of each (garbage, Ziploc sizes)
triangular bandages	3 (in own bag)
water purification tablets	1 small bottle
cake icing	1 tube
Bag #1—Dressings:	
4x4 gauze	10 (in own bag)
roller gauze	3
ace bandage	1
waterproof tape	1 medium roll
Bag #2—Wound supplies	
general band-aids	25
alcohol/Providone pads	24
Betadine swabs	5–8 swabs
Neosporin/ antibiotic	1 tube (in own bag)
Caladryl	small tube
Burn dressing—2nd skin	2–4 squares
Bag #3—Medicines:	
Tylenol	10 tablets (some children's strength)
Benedryl	10 capsules
Dramamine	3 tablets
Immodium	4 tablets
Maalox	6 tablets
Bag #4—Miscellaneous	
scissors	1
tweezers	1
moleskin	moderate amount
Sting-eze	5–10
backpack repair kit	1
sunscreen	3 packets
sports creme	1 tube
matches	1 box

The Biking Expedition

Emergency Medical Release

PLEASE FILL OUT BOTH THE TOP AND BOTTOM RELEASE
SO EACH LEADER CAN CARRY A RELEASE.

Medical Release for: _____ Trip Name and # _____

Parent(s): _____ Home Phone: _____

Address: _____ Work Phone: _____

Summer Address: _____

Dates at Summer Address: _____

Any Allergies? _____

In Emergency, if you cannot be reached, whom can we call?

Name: _____ Phone: _____

IN CASE OF MEDICAL EMERGENCY, I hereby give my permission to the physician selected by an authorized representative of The Biking Expedition, Inc. to secure proper medical treatment for my child, including, but not limited to, injections, anesthesia, surgery, and hospitalization.

Parent/Guardian Signature: _____ Date: _____

HEALTH INSURANCE INFORMATION:

Insurance Provider _____ Policy #: _____

Special Instructions: _____

- - - -

Merrowvista Education Center

(Confidential)

Participant's name: _____

Organization: _____ Age: _____

Program date:_____ Insurance carrier: _____

Person to be contacted in case of emergency:_____

Emergency phone:_____

Describe any significant medical problem(s) that might bear upon your ability to participate in outdoor activities:

List any (1) current medications; (2) allergies—to insect bites, bee stings, etc.; and (3) reactions to any medications:

PERMISSION FOR MEDICAL CARE

In the event of a medical emergency, I give permission to Merrowvista Education Center and their staff or designated personnel to hospitalize and/or secure proper treatment for me.

_____

Participant Signature

_____

If a minor—Parent/Guardian Signature

_____

Date

_____

Liability

Acknowledgment of Risks and Release of Claims

Boojum Institute for Experiential Education

Name of Participant (PRINT CLEARLY) _____

Client: _____

Course Location/Dates: _____

The safety and well being of each participant is of paramount importance to the professional staff of the Boojum Institute for Experiential Education. All reasonable care and precautions are taken to ensure a fun educational experience. The following acknowledgment & release is both a requirement of insurance coverage and an important reminder to you as a parent or participant to be sure that you or your child is properly prepared.

I, or my child, _____, desire to participate in the course specified above. I understand the above mentioned program offered through _____ and the Boojum Institute for Experiential Education ("Boojum Institute") will take place in a wilderness environment and may include but is not limited to, the following potentially hazardous activities: hiking, camping, environmental education, canoeing, swimming, initiative activities, high/low ropes course events, bouldering, rockclimbing, and transportation. These potentially hazardous activities can cause personal injury, property damage, death or illness.

I understand that the Boojum Institute does not require that I participate in the course. In recognition of the potentially hazardous nature of the elective course, I, or my child, my heirs and assigns, hereby release Boojum Institute and its employees from all claims and liability from negligence arising from participation in the course. I further agree to hold harmless and indemnify Boojum and its agents for all defense costs, including attorney's fees, and any other costs resulting in connection with my participation in this activity.

I understand that this release relates to all claims and liability during or after the trip resulting from a preexisting medical condition. I have read and completed fully the medical form provided by Boojum Institute and accept full responsibility for omissions or errors on the medical information form.

I also understand that this release relates to all claims and liability resulting from unforeseen or intemperate weather. I have read the clothing and equipment list provided by Boojum Institute and accept full responsibility for inadequate clothing or equipment provided by me or which I fail to provide.

I have read this entire release of claims and fully understand it. I have satisfied my questions and concerns regarding the above mentioned course either by talking with representatives of _____ or Boojum Institute.

PARTICIPANT'S SIGNATURE: _____ DATE: _____

LEGAL GUARDIAN SIGNATURE: _____ DATE: _____
(PARENT OR LEGAL GUARDIAN MUST SIGN IF PARTICIPANT IS A MINOR)

Venture Activity: _____

_____ Dates of Activity:

Venture Program Release and Hold Harmless Agreement

THIS IS A LEGAL DOCUMENT THAT INCLUDES A RELEASE OF LIABILITY. READ IT CAREFULLY BEFORE SIGNING.

1. I understand and accept that the Venture Activity noted above exposes me to many risks. Some of the risks which may be present or occur include, but are not limited to:
   - the hazards of traveling in steep terrain, including the potential of falling
   - rock hazards; including loose rocks falling from above, climbing or rappelling on unfamiliar, steep, and sometimes unstable rock faces
   - using harnesses, ropes, carabiners, and other climbing equipment
   - man-made objects falling from above including but not limited to ropes, carabiners, other climbing gear, packs, cameras, and personal gear
   - carrying ropes and other climbing equipment
   - hiking or walking in rugged terrain, including slippery rocks
   - injuries inflicted by animals, insects, reptiles or plants
   - the forces of nature including lightning, weather changes, hypothermia, hyperthermia, sunburn, high winds, and others not named
   - the physical exertion associated with the outdoor activity
   - traveling in a vehicle not driven by me
2. This Venture Activity is not a University requirement. I have freely chosen to participate. I hereby assume the risks associated with this Venture Activity.
3. I understand that this activity may subject me to rigorous physical exertion. I hereby state that I am in sufficient physical condition to accept a rigorous level of physical activity.
4. IN CONSIDERATION OF AND AS PART PAYMENT FOR THE OPPORTUNITY TO PARTICIPATE IN THIS WORKSHOP, I HAVE AND DO HEREBY RELEASE AND WILL HOLD HARMLESS THE UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE AND ALL ITS OFFICERS, EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY, ACTIONS, CAUSES OF ACTION, DEBTS, CLAIMS AND DEMANDS OF EVERY KIND AND NATURE WHATSOEVER, AND SPECIFICALLY INCLUDING ANY CLAIM FOR NEGLIGENCE OR NEGLIGENT ACTS, WHICH I NOW HAVE OR WHICH MAY ARISE OUT OF OR IN CONNECTION WITH MY TRIP OR PARTICIPATION IN THIS ACTIVITY. THE TERMS HEREOF SHALL SERVE AS A RELEASE, INDEMNIFICATION, AND ASSUMPTION OF RISK FOR MY HEIRS, EXECUTORS, AND ADMINISTRATORS AND FOR ALL MEMBERS OF MY FAMILY, INCLUDING ANY MINORS ACCOMPANYING ME.

5. Prior to signing this document, I have had an adequate opportunity to read and understand it, have had an opportunity to ask questions about it, and any questions I have had have been answered to my satisfaction.

Participant:

Signature	Printed Name	Date

Parent or Guardian (if participant under 18):

Signature	Printed Name	Date

Transportation

Alaska Wilderness School

Van Driver Policy and Waiver

VEHICLE SAFETY CHECK

Before driving any University of Alaska vehicle, each driver must first go through a vehicle safety check. This will include a check of the following:

- the horn
- the right and left blinkers
- the lights, dim and bright
- the emergency brake
- the hood release
- the spare tire, jack, and wrench
- all emergency equipment, including the first aid kit, flares, fire extinguisher, flashlight, and jumper cables

Each driver must know where all of these accessories are located and how to use each correctly.

ROOF RACK INFORMATION

Additionally, any driver who will be using the van when there is equipment on the roof rack must know the following information:

- Only people designated by AWS employees are allowed on the roof rack.
- When loading or unloading gear, please walk on the supports only; do not walk on the wire mesh.
- All equipment on the roof rack must be tied down securely.
- All equipment should be loaded as low as possible.
- The heaviest items should be loaded directly in front of the rear wheels.
- The maximum roof load is 1,000 pounds, or roughly 65 pounds per person for up to 15 riders.

DRIVING POLICIES

- Only designated drivers who have completed the van driving test and checklist can drive the AWS vans.
- When backing the van, use a spotter as an aid.
- Drivers who are ticketed for moving violations will be responsible for paying all associated fines/fees.

MISCELLANEOUS RULES AND REGULATIONS

- The driver and all passengers must use seat belts whenever the van is in use.
- Each driver should log the starting and ending mileage. Please note the purpose and location as well.
- When you have returned to UAA, please remove all trash and any lost-and-found items from the van.
- When you have returned to UAA, return the keys to the Alaska Wilderness Studies office. At that time, leave a verbal or written message identifying the amount of gas remaining in the tank.
- When it is not in use, the van should remain locked at all times.

IN THE EVENT OF AN ACCIDENT

- See accident report form located in the glove box. Notify the AWS office ASAP.

DRIVING TEST

Before being allowed to drive an AWS vehicle, a driving test must be completed. This test must be supervised by an appropriate University employee. The test will include the following maneuvers:

- backing the vehicle while using a spotter
- turning corners safely
- changing lanes safely
- driving in city traffic

In addition to completing the checklists and driving test, all drivers must provide AWS with proof that s/he possesses a current driver's license. A copy of the license should be stapled to this document and will be placed in the driver's employee file.

VERIFICATION OF DRIVING TEST AND CHECKLIST COMPLETION

By signing this document, you are acknowledging that you have read and understand the above information. A second signature is required from a University employee who supervised/witnessed the checks and driving test.

_____ _____

Signature of Driver Date

_____ _____

Signature of Witness Date

Licenses and Permits

see Ground Transportation section—Camp High Rocks

Other

Worldwide Outfitter & Guide Association, Inc.

Incident and Accident Report

Outfitters and Guides

(Use Additional Paper if Necessary)

All Worldwide Outfitter & Guide Association, Inc. information excerpted with permission from the Worldwide Outfitter and Guide Association's Risk Management Manual, *Will Leverette, 353 Buckeye Cove Road, Swannanoa, NC 28778.*

Name of Insured: _____

Address: _____

Office Phone: (___) _____ Home Phone:(___)_____ Contact: _____

Insurance Policy Number _____ Effective Date: _____

Name of Injured Party:_____ Age:_____ Gender:_____

Address: _____

Employment: _____

Home Phone:_____ Employment Phone: _____

Activity Participating In: _____

Date of Injury: _____ Time of Injury: _____

Describe the extent of Injury: _____

Describe the Injured's Mental Status: Confused _____ Calm _____ Panicked _____

Aggressive _____ Other _____

Describe in detail how accident happened: _____

_____

_____

Allergies and Medications: _____

Describe First Aid Given:_____

_____

_____

_____

Is this a reinjury of an old condition? _____

Activity Time Lost: None _____ 1/2 Day or More _____ Ended Participation _____

Describe Evacuation: _____

_____

_____

Describe location and accident site: _____

_____

Describe the Weather: _____

Air Temperature(Estimate):_____ Water Temperature (Estimate):_____

Wind: _____ Precipitation: _____ Clouds _____ Visibility:_____

Were there other contributing factors? (If yes, describe)_____

_____

Did equipment contribute in any way to the accident? (If yes, describe) _____

_____

Trip leader or Senior guide: _____Age: _____

Experience/Training:_____

Guide whose participant/customer was injured:_____

Experience of training:_____

Other Guides on Trip:

Name	Age	Experience

_____

_____

Has the injured party signed a release and is it available? _____

_____

Has the injured party participated in this activity at this location before? _____

Does the injured party presently have any type of medical coverage? _____ Yes _____ No

If "yes" please specify name of Company_____

Did the injured party contribute to the accident in any way? _____

Did the injured party *state* that he/she contributed to the accident in any way? _____

Did the injured party refuse first aid or evacuation?_____

Did another participant contribute to the injury? (Describe) _____

_____

Were there warnings or instructions that were not heeded?_____

Were there other people injured in this accident? (Describe) _____

_____

Additionally obtain and attach:

1. A copy of the Assumption of Risk and/or Liability Waiver that the injured party signed.
2. Written narrative statement by your guide of "what happened."
3. Names, addresses and phone numbers of all witnesses including:
   A. guests
   B. guides
   C. other witnesses
4. Witness Statements

Please provide complete and thorough information and reports as soon as possible.

SIGNATURE _____ DATE: _____

TITLE: _____

Worldwide Outfitter and Guide Association

Guidelines for Handling an Accident

What to Say, Not to Say, Do and Not Do

Often the opportunity to defend an Outfitter or Guide against frivolous litigation is lost in the few days after the accident occurs. As time goes by, memories fade, details are forgotten, and the opportunity to put a professional face on the entire incident is lost. Quite often, litigation attorneys wait until the Statute of Limitations almost expires before they file the lawsuit. Their hope and the unfortunate reality is that by the time the lawsuit is filed, so much has been lost and forgotten that it becomes impossible and impractical to defend the Outfitter against the lawsuit. The sooner and the earlier information is gathered and obtained concerning the accident, the better your chances are of affecting a positive outcome if faced with *potentially damaging litigation.*

The following Guidelines will help the concerned Outfitter and Guide to handle accident situations properly and help avoid this type of litigation. Please remember speed is of the essence. Any delay could end up costing the Outfitting Industry, and ultimately the Outfitter, thousands of dollars in legal fees and higher insurance premiums.

I. RELATIONSHIP TO THE INJURED

Lawsuits are entered by injured parties when they feel that the Outfitter has not demonstrated the highest level of care and concern for their well-being and personal safety. This care and concern starts before the accident and should be an ongoing element of the entire trip. Learning people's names, responding to them as individuals, and showing care and concern for their well-being throughout the trip is probably as important, if not more important than, the care and concern you show to them once the accident has occurred. Remember to make friends. You are less likely to sue your friends. Search-and-rescue experts and psychologists have taught us that injured persons respond better and develop lesser degrees of shock if one individual is assigned to that person, stays with that person throughout the evacuation, rides with them in the ambulance or vehicle to the hospital, checks them into the hospital, remains with them in the waiting room, and gives them the same kind of care and attention that a parent would give her/his child. This consistent thread from the accident site through the evacuation and into the hospital has a calming and settling effect on accident victims. It is often the most important factor in discouraging accident victims from going into litigation. Do not give them an opportunity to get upset.

As well, the comfort and psychological well-being of the rest of the trip participants is an important factor. Other individuals, family members, and witnesses are going to be canvassed later for their opinion of what happened, what occurred, and what type of care was given to the injured party. These people have, in certain situations, become accident victims themselves because of their own mental state and the Outfitter's disregard for their well-being. Make certain that the entire party is taken care of, administered to, and made comfortable. Their evaluation of what happened will be a critical element of litigation.

II. RECOMMENDATIONS FOR GUIDES:

1. Don't make guarantees of a speedy evacuation. You can say that you are doing the best you can, that you have sent for help, and the remoteness of your location could require some time to get out.
2. Don't make admission of guilt or wrong-doing, such as "We've had problems here before," or "This horse has been a problem for us in the past." Comments of this nature will be very damaging in litigation. Do not make value judgments or statements concerning what happened.
3. It is okay to say you're sorry that they are hurt, that you are doing everything you can to get them out as fast as you can, and to show empathy and sympathy for what they are experiencing.
4. As soon as possible, begin to make field notes concerning the accident. Of particular concern are the basic questions of: what, where, when, and who was involved in the accident. As early as possible, begin to look at your watch to note the time of the injury, the time of the evacuation, and to make notes concerning the details of what happened. Also you might begin to take notes of things that were said: witness statements, injured party statements, and family member statements concerning how the accident occurred, and why it occurred.
5. Ensure that participants understand they must accept risk. And other insurance is primary coverage. As Association members, your participants are provided Excess Medical—*Excess of their Primary Insurance*! In other words, they'll need a primary insurance provider.

III. THE FULL WRITTEN REPORT

NOTE: Concerning "Discovery," everything that is recorded and written from this moment until the Association's attorney begins to direct the investigation is considered Discoverable. Discoverable means that the litigating attorney can request and obtain any and all records and use them in the litigation process. Therefore, it is essential in this and all written records concerning the accident that Guides and Outfitters avoid comments that could be potentially damaging later on. Comments which admit guilt, cast blame, and that are judgmental or accusatory in nature are to be strictly avoided. Stick to the facts. The simplest and easiest guide to follow in writing up an Accident Report is to answer the question "What happened." Avoid opinions, assumptions, personal feelings, and evaluations that are made during the height of emotional turmoil that often follows an accident.

1. Utilize the Worldwide Outfitter & Guide Association's Incident/Accident Report form as a guide for collecting and developing your report. Answer all questions as completely as possible, and make certain that all handwriting is readable and that there isn't too much coffee and eggs spilled on the report.
2. Encourage each Guide to develop her/his own written account of what happened, utilizing the basic guidelines of: "What happened?" "Where did it happen?" "When did it happen?" and "Whom did it happen to?"
3. Never address the "why" of what happened in writing.

IV. CONCERNING WITNESSES

On page 40, you will find a "Witness Statement" form. Get as many people who witnessed the accident as possible to fill out the form as soon as possible. If practical, get the injured person to fill one out, too. If not practical, mail them a form. In presenting the form, you should portray it as a trade association tool, used to

gather information on accident trends. The information will be used to help prevent similar accidents, if possible, in the future. Do not portray the process as an insurance requirement.

Time may not allow or permit you to take witness statements; therefore, the very best you can do in this situation would be to simply ask them what happened. Write down what they say. Comments such as, "The injured person would not have been injured if they had been more careful," "The injured person refused First-Aid or treatment," "The injured person contributed to their own accident through their own actions," are extremely important.

Given time, unfortunately, injured persons and witnesses often change their version of what happened. The sooner you obtain a record of their impression of the events that led up to and immediately followed the accident, the more likely we are to get an accurate picture of what actually happened.

V. PICTURES

Obtain as many pictures as possible of the accident site and of the accident victim. With any kind of luck, someone on the trip will have a camera. Pay particular attention to the terrain encountered by the accident victim immediately before the accident occurred. As well, canvass all participants to see if by chance someone might have recorded the actual accident on film.

NOTE: Accidents with known injurious consequences involving evacuations and transportation to medical personnel for further evaluation and treatment must be reported to the Insurance Company by the Association Member within 72 hours.

VI. COMMUNICATION WITH THE NEWS MEDIA

If there has been a fatality, the prudent Outfitter can count on some contact with the news media. Often this contact leads to poorly documented facts of the accident, resulting in bad publicity and potential litigation problems. The company owner will designate a spokesperson to provide information to the news media. The spokesperson should do the following:

1. prepare a factual statement to be reviewed by legal counsel if necessary
2. communicate the statement to the Wire Service, AP, and UPI
3. set up a system for handling telephone inquiries

In the unfortunate event that the news media has picked up on the fact that there has been an accident, and they arrive at the accident scene, remember, their job is to sell press. They are going to try to sensationalize and dramatize the story as much as possible. They will ask leading questions, make accusatory statements, heckle other members of the party, and press them for statements. These statements may or may not be accurate concerning the events of the accident. At the scene of the accident and/or evacuation, it is best to appoint a representative to speak to the press and make very few statements. Encourage them to contact the main office for a further statement. Your best defense is to say "We do not have any comments or statements at this time." Try to keep the news media away from other members of the party, if at all possible.

The following comments are offered as a general guide in dealing with the news media. You will find the news media cooperative if you deal with them straightforwardly and with facts subject only to legal constraints, consideration for next of kin, protection of the injured, and good taste. Hesitantly or improperly dealing with the press in an emergency situation may not only escalate their news

coverage, but also may be critically costly to your program, thus taking a great deal longer to remedy. From a public relations point of view, the objective is to have a one-day story and to avoid a continuing series of headlines and features dragged out over a period of days or weeks.

1. Most dealings with the news media will take place over the phone. Rather than reading a "canned story" to the caller, the spokesperson should have a written list of key points for reference and tell the story in his or her own words. The press will want to know:

   What happened?

   Where it happened?

   When it happened?

   Who was involved—Names?

   Why it happened? See # 8.

   Background on Outdoor Recreation.

2. Specifically, the spokesperson will provide an accurate and full disclosure of the facts and cooperate to every extent possible with the news media.
3. When information cannot be released, explain why. Some examples: if next of kin have not yet been notified, doctor's orders prohibit interview of survivor, etc.

   NOTE: Withholding the names of victims pending notification of next of kin is appropriate and will be respected by the press. However, we should not deny that the accident itself occurred.
4. Refrain from speculation and make it known when you do not know the answer to an inquiry.
5. Make certain all media and all reporters have equal access to information.
6. Upon discovering that erroneous information has been given to the media, provide correct information as soon as possible.
7. When a reporter prints or broadcasts erroneous information, inform the reporter, not his superior, and provide the correct information.
8. RESTRICTIONS: No one, including the spokesperson, will release any information that identifies responsibility for the accident without first consulting legal counsel. Specific problems arise when:

   a. assignment of fault or criticism of conduct, policy, or equipment is made public without a full explanation of the circumstances of the accident, which should be developed through a complete investigative process
   b. information regarding nature of injury or illness is released prior to diagnosis by a licensed medical physician
   c. names of victims are revealed prior to notification of next of kin

VII. FOLLOW-UP

Again, it is essential that a representative of the Outfitter make visits or phone calls to the injured person concerning her/his welfare and well-being. Show personal attention, care, and concern, and s/he will be less likely to sue you. Remember, everything you say or do before, during, and after the accident will be scrutinized in detail, either by litigating attorneys and/or a court of law. Think about what you are doing and saying.

Regarding equipment: Any and all equipment that was involved in the accident and that conceivably could have contributed to the accident should be pulled out of the regular equipment inventory and kept secured in a separate place for future examination. Photographs can be helpful.

VIII. Report incidents and accidents to:

Doug Murray—Claims Manager
W.C.C.A.I.B.
1787 E. Fort Union Blvd.
Suite 101
Salt Lake City, Utah 84121
(801)-942-7863
(800)-543-6497

STATEMENT OF ACCIDENT

Our professional trade association requires us to collect witness statements pertaining to accidents so we may clearly assess how they occur. We use this form to obtain these statements and to obtain information on future accident prevention. Thank you for helping us with this matter.

1. Describe the actions leading up to the accident (situations, statements and actions of guides and passengers):

2. Describe the accident:

3. Describe the actions following the accident:

4. Can you think of any way this type of accident could be avoided in the future?

5. Were sufficient warnings, instructions, and information provided?

Name: _____

Address: _____

Signature: _____

RISK MANAGEMENT

Risk Management is the process of doing everything you can to protect people, property, and assets from losses. There is a lot more to Risk Management than simply buying insurance. When you purchase insurance, you really have entered into a partnership with your insurance program. It is your combined assets that are at stake. If you approach this matter casually, your insurance program will be looking for a new partner, and the future of recreation will be compromised.

To further understand the importance of Risk Management, it is useful to look at the five most common allegations against Recreation Service Providers:

A. The injured was not adequately warned and informed of the inherent dangers.

B. The injured did not receive proper instruction on skills and the use of equipment.

C. The trip was in the wrong place at the wrong time (high water, lightning, etc.).

D. The guide used bad judgment.

E. The rescue was overly lengthy and complicated and subjected the injured to undo pain and suffering.

These are the problems. We have provided you with the solutions. For yourself, for other Members of the Association, and for the future of Recreation—Get Organized!

Serious Incident (Accident) Review Process

By Jed Williamson

I. **Preparation and Understanding.** There are some givens that need to be understood before looking at what happens when a serious incident occurs in your program.

- Following a major incident, External Reviews are a common practice in all industries.
- All programs should have a Risk Management Committee, and each member should clearly understand the Emergency Action Plan and External Review process.
- There should be a clear understanding and agreement among program administration, Board of Directors, insurance carrier, and counsel regarding the post-incident review process. (Issues may include unwillingness of insurance carrier to include outside reviewers, levels of disclosure to family, other outside interests, etc.)

II. **When to Have an External Review of an Incident**

- when a fatality occurs to a participant
- when a fatality occurs to a staff member while on duty
- when a permanently disabling injury occurs to a participant
- possibly—when a permanently disabling injury occurs to a staff member while on duty
- possibly—when a life-threatening injury occurs to a participant or staff member while on duty

III. **What Is the Role of the External Review Team?**

- Overall Mission: to help the industry prevent fatalities and permanently disabling injuries.
- Specific Mission: to help the program find and/or confirm the primary and secondary causes of the incident.
- Goal: to provide recommendations and suggestions that focus on prevention of further incidents and improvement of quality (i.e., to serve as a consultant).
- Hazard: members of the team may be asked to become expert witnesses—by either side!

IV. **Who Should Be On the External Review Team?**

a. Personality: empathetic, open-minded, reflective, proven communication skills (verbal and written), able to maintain objectivity and confidentiality. Conversely, do not select persons who may have a conflict of interest, who are known to have biases, and who may already have formed an opinion.

b. Skills:

- The Team Leader should have, in addition to the above, credibility in the field, including several seasons of direct instruction and at least three years of administrative experience.
- At least one member should have unquestionable expertise in the activity and type of terrain in which the incident occurred;

- Other factors will determine what other kinds of skill sets are needed. Examples: Appoint a doctor if a medical condition (illness, hypothermia, dehydration, HAPE, etc.) was part of the cause, a doctor may be an appropriate member; appoint a school administrator if the incident occurred on a school outing; appoint a counselor/psychologist if participants were from a special population.

V. **Ground Rules for the External Review Team**

- Assure program that findings will be confidential unless otherwise agreed.
- Secure understanding from program that findings will be independent.
- Get agreement from program that all records and people will be available to the Review Team.
- Get agreement from the program that all Recommendations will be followed.
- Assure that support will be provided as needed.
- Media: discuss and agree on how media will be handled, including control of the Final Report. No matter what, no talking with media before the end of the process. Be explicit about book, article, movie, TV requests.
- Agree in writing as to fees and costs.
- If a conflict arises among team members, it will be resolved in private, with the Team Leader having the ultimate authority.

VI. **Steps in Conducting an External Review of an Incident**

a. The program should begin appointing the Review Team immediately following the incident. There should be a Team Leader and two to five other members, depending on the magnitude and kind of incident.

b. Draw up a written agreement as to scope of work, process, costs, and distribution of Final Report. (See Ground Rules for External Review Team.)

c. External Review Team Steps:

- Team Leader communicates with other members as to timing, process, task assignments.
- When environmental factors are part of the cause, deploy at least one Review Team member to the site ASAP (before conditions change). Photographs, and perhaps video, of the scene should be a part of this process.
- Review all pertinent written materials.
- Conduct site visits, including headquarters where incident occurred.
- Conduct interviews with appropriate administration, staff, and external people and agencies involved.
- Each team member writes findings.
- Team Leader writes DRAFT for the program's Risk Management/Internal Review Team.
- Team Leader meets with program's team to discuss DRAFT and possible revisions.
- Team Leader submits Final Report to designated program person(s).
- Team Leader available for meetings with various levels of program to discuss Final Report.

The Biking Expedition

Missing and/or Damaged Equipment Report for Leaders

Trip:_____ Leaders: _____

Leaders: complete and turn in with your debriefing information

---

Item #1: _____

Circle one: Physical Damage Missing

If damaged, describe damage and cause. Include names of people responsible:

_____

_____

_____

_____

_____

_____

If item is missing, describe cause and names of people responsible:

_____

_____

_____

_____

_____

Was this damage/loss reported to the office? _____ Yes _____ No

---

Item #2: _____

Circle one: Physical Damage Missing

If damaged, describe damage and cause. Include names of people responsible:

_____

_____

_____

_____

_____

_____

If item is missing, describe cause and names of people responsible:

_____

_____

_____

_____

_____

Was this damage/loss reported to the office? _____ Yes _____ No

Equipment Use and Repair Report

Item: _____
(include model, make, serial number, etc.)

Description: _____
(include size, color, etc.)

Date Purchased: _____ Cost: _____

Vendor Name and Phone: _____

Warranty Info Location: _____

TBE Item Number or Name: _____

USE RECORD

Dates _____ Trip _____ Dates _____ Trip _____
Dates _____ Trip _____ Dates _____ Trip _____
Dates _____ Trip _____ Dates _____ Trip _____
Dates _____ Trip _____ Dates _____ Trip _____
Dates _____ Trip _____ Dates _____ Trip _____

REPAIR RECORD

Date _____ Repair _____

_____

_____

_____ Approx. cost of repairs _____

Date _____ Repair _____

_____

_____

_____ Approx. cost of repairs _____

Date _____ Repair _____

_____

_____

_____ Approx. cost of repairs _____

Date _____ Repair _____

_____

_____

_____ Approx. cost of repairs _____

Date _____ Repair _____

_____

_____

_____ Approx. cost of repairs _____

The Biking Expedition

Student Evaluation

Student Name:_____Date: _____

Trip:_____Trip Leaders: _____

What was your overall impression of this student?
(check one or more)

_____ Adjusted well to the trip
_____ Adjusted poorly to the trip
_____ Was a positive influence on the group
_____ Was a negative influence on the group
_____ Had neither a positive nor negative influence on the group
_____ Other (please describe) _____

Comments:

_____
_____
_____
_____
_____
_____

Would you recommend that we accept this student for another trip?

_____Yes ____ No If no, please explain why . . .

_____
_____
_____
_____

Did the student fit into one or more of the following categories?

_____ Seemed to like all aspects of the trip
_____ Liked the group experience, disliked the cycling
_____ Liked the group experience, disliked the camping
_____ Liked the cycling, disliked the group experience
_____ Liked the camping, disliked the group experience
_____ Other (please describe)

Comments:

_____
_____
_____
_____
_____

Student Name: _____ Trip: _____

How would you describe this student? (check all that apply)

_____ Outgoing in a positive way
_____ Outgoing in a negative way
_____ Constant need for attention
_____ Withdrawn
_____ Accepted by the group
_____ Disliked by the group
_____ A leader
_____ A follower
_____ Quiet in a positive way
_____ Quiet in a negative way (devious)
_____ Positive self-image
_____ Negative self-image
_____ Easygoing, flexible, adjustable
_____ Other (please describe) _____

_____

Sometimes students have a difficult time adjusting to a cycling trip simply because he/she has never been on an experience requiring group participation and physical exertion. Did this student have a difficult adjustment to the trip? _____ Yes _____ No. If yes, did the student eventually make the adjustment and complete the trip in a positive way? _____ Yes _____ No. Please explain briefly.

_____

_____

_____

In your opinion, what was the maturity level of the student compared to the other students in the group?

_____ More mature
_____ The same maturity level
_____ Less mature
_____ Abnormally immature
_____ Other (please describe) _____

_____

_____

Did this student cycle safely?

_____ Yes
_____ Most of the time
_____ Had to be reminded constantly
_____ No
_____ Other (please describe) _____

_____

_____

Was the student a safe camper?

_____ Yes
_____ Most of the time
_____ Had to be reminded constantly
_____ No
_____ Other (please describe) _____

_____

_____

What kind of a reference for TBE do you think this student would make? Remember, we are not looking just for students who will give glowing reports of the trip but also students who will represent the trip honestly. Parents will be concerned about leadership, supervision, organization, positive personal relationships, etc. Given this info, what do you think? (circle one)

Excellent / Good / Unsure / Other (please describe) _____

The Biking Expedition

Trip Evaluation

Leader Name:_____ Date: _____

Trip:_____ Co-Leaders: _____

What was your overall impression of the experience for the students in your group? (check one)

_____ Super!
_____ Successful for the most part
_____ Moderately successful
_____ Just OK
_____ Poor
_____ Terrible (hardly anyone got anything out of the trip and it ended basically on a sour note)
_____ Other (please describe) _____

Please describe the reason for the answer above:

_____

_____

_____

_____

_____

_____

Below are specific topics that we would like you to think about and respond to with pertinent comments.

Itinerary: Are there any specific route changes you feel would improve the quality of this trip? Even if you don't have an alternative, please mention any routes you wouldn't want to do again.

_____

_____

_____

_____

_____

_____

Camping/Hosteling: Are there any camping areas/hostels you would recommend we not use in the future? Are there any that were not on the itinerary that you feel we should use next year?

_____

_____

_____

_____

_____

_____

Below are the various items you are required to use. Please let us know if you found these items adequate or inadequate for your needs.

Tool kit	____ Adequate	____ Inadequate
Cooking gear	____ Adequate	____ Inadequate
Tents	____ Adequate	____ Inadequate
First aid kit	____ Adequate	____ Inadequate

If you feel any were inadequate, please let us know what you feel should be added or deleted from the grouping.

_____

_____

_____

Please tell us your impression of your co-leader(s) by circling the number representing the most appropriate rating (if you have more than one co-leader, put your co-leaders' initials next to the circle you used to describe that leader):

	Poor		Good		Excellent
Motivation/initiative	1	2	3	4	5
Self-discipline	1	2	3	4	5
Leadership	1	2	3	4	5
Self-confidence	1	2	3	4	5
Ability to work with co-leaders	1	2	3	4	5
Warmth of personality	1	2	3	4	5
Sense of humor	1	2	3	4	5
Concern for others	1	2	3	4	5
Emotional maturity	1	2	3	4	5
Reaction to setbacks	1	2	3	4	5
Integrity	1	2	3	4	5
Social skills	1	2	3	4	5
Ability to work with students	1	2	3	4	5

Would you want to lead with this person (or these people) again? Why or why not?

_____

_____

_____

_____

Did you feel supported and helped when you called in to the office? Please explain:

_____

_____

_____

_____

Would you want to lead another trip for The Biking Expedition? Why or why not?

_____

_____

_____

Leadership Training Evaluation

Training a group of leaders with varying levels of field experience and skills is a challenging process. We would love as much feedback as you can provide to help us shape future leader weeks.

On a scale of 1 to 10, to what extent have we met the following six goals of leadership training:

1. To incorporate fun, joy, and a sense of higher purpose into everything we do _____
   Comments or suggestions for ways to improve: _____
   _____
   _____

2. To build or reinforce the following bike trip skills:
   Mechanics _____
   Cycle/Safety skills _____
   Cooking/Shopping _____
   Group travel/procedures _____
   Comments or suggestions for ways to improve: _____
   _____
   _____

3. To build and reinforce group process skills related to TBE trip:
   Understanding/managing conflict behavior _____
   Team-building exercises and group games _____
   Debriefing and sharing through Summit meeting _____
   Building strong co-leader relations _____
   Comments or suggestions for ways to improve: _____
   _____
   _____

4. To build community among staff:
   Support, friendship, idea sharing, trip modeling _____
   Encourage year-round participation and vested interest in TBE _____
   Comments or suggestions for ways to improve: _____
   _____
   _____

5. To understand and internalize TBE policies and procedures:
   Safe cycling rules _____
   Policy and consequence procedure for policy violations _____
   Dealing with medical emergencies _____
   Understanding the role of a leader _____
   Comments or suggestions: _____
   _____
   _____

6. To brief leaders on the logistics of their trips

Comments or suggestions: _____

_____

_____

Do you have any feedback (positive or negative) about the leadership and facilitation provided throughout the week? _____

_____

_____

If you had to cut one workshop session, what would it be? _____

_____

_____

If you could add more emphasis to one area, what would it be? _____

_____

_____

Comments or suggestions on the food: _____

_____

_____

Do you recommend any changes in the schedule or sequence of information?

_____

_____

Thanks so much for all your hard work! This will be a wonderful summer!!

Merrowvista Education Center

Route Plan Cover Page

All Trips

Leaders _____

Group and Village _____ No. _____ Page _____

Participants' Names (alphabetical by last name)

_____

_____

_____

_____

_____

_____

Origin _____ Day _____

Date _____

Destination _____ Day _____

Date _____

Expected Pickup

Location _____

_____

Expected Pickup

Day _____ Time _____

The intention of this page is to introduce the trip to a person not joining your group, to provide for emergency assistance information if necessary, and to provide information for groups that may follow your route some day in the future.

EMERGENCY ASSISTANCE PHONE NUMBERS

N.H. State Police 1-800-852-3411
Maine State Police 1-800-452-4664
Merrowvista 1-603-539-6607 or 8037

Other _____

_____

NEAREST HOSPITALS

_____

_____

_____

GROUP MEDICAL CONDITIONS OR NEEDS

WEATHER REPORT

SPECIAL NOTES (list materials necessary to locate this journey; use reverse if necessary)

Merrowvista Education Center

Hiking Route Plan

Group and Village _____ Page _____

Origin _____ Day _____

Destination _____ Date _____

Miles _____ Expected time of travel _____

Route instructions: (list trail names, junctions, direction of travel, known hazards or scenes, map names, or page references from guide books)

Landmarks:

Expected Trail Condition:

Locations of Water:

Alternate Routes/Escape Routes, Phone Locations, Points of Return:

CHAPTER III

Staffing Certifications and Requirements

The Biking Expedition

1997 Certifications and Requirements

THE BIKING EXPEDITION FIRST AID REQUIREMENTS ARE CURRENT CERTIFICATION IN

1. D.O.T. First Responder or Red Cross Emergency Response (44 hour course) or equivalent
2. Wilderness First Aid (16 hour course) or equivalent

   Acceptable equivalents to the above are Wilderness First Responder, Outdoor Emergency Care, Wilderness EMT. Current EMTs will need to take Wilderness First Aid.
3. Lifeguard Training, TBE Water Safety Course or equivalent
4. Adult CPR certification through Red Cross or American Heart Association

If you do not hold these certifications at the time of your application, let us know how you plan to meet these requirements prior to the summer season!

TBE will be holding courses on the following dates:

Course	Taught by:	Dates:	Cost
Red Cross Emergency Response	Red Cross/TBE	6/5 – 6/11	$50
Wilderness First Aid	SOLO	6/12 – 6/13	$65
Water Safety	BSA/TBE	6/9 – 6/10*	Free
CPR	Red Cross	6/11*	$25

* The times offered do not conflict with any of the course offerings.

OTHER REQUIREMENTS

5. All staff need to have a photocopy of a valid driver's license and a Department of Motor Vehicle report on file with TBE. A DMV report typically costs $7 and is a statement of your driving record.
6. Staff Age: Trip leaders must be 21 or older. The average age of a trip leader is 25.
7. Staff Training: All leaders must attend staff training, June 15-21. All expenses are paid for this week. First year staff receive a $100 stipend.

Bike maintenance and cycle skills are taught during staff training. However, leaders should be familiar with these areas before they arrive at training in order to achieve the highest competency possible.

Each trip leader is responsible for his/her own transportation to and from Henniker, N.H. TBE does have a small transportation fund that can help defray some costs for leaders coming from great distances. Leaders must apply for this money by April 1st.

Responsibilities

Each staff member forms a team with one or two other leaders. Each leadership team is responsible for meeting the physical and emotional needs of 8 to 12 teenagers. It is a 24-hour-a-day job. As a trip leader, you must coordinate the diverse personalities of the group members in a very intense living/traveling situation. Therefore, a prime requisite for the job is that you are skilled in working with teenagers. You need the ability to motivate, organize, and supervise while maintaining a sense of joy and a sense of humor.

Successful leaders are generalists who can perform diverse tasks with a flair. These include the following:

1. Facilitate the development of a community.
2. Manage spontaneous problems and emergencies.
3. Teach minimum bike skills and maintain safe cycling.
4. Effectively facilitate group decisions and plan group activities.
5. Keep the group on their route, using maps and itinerary directions.
6. Respond to bike breakdowns, keeping the group's bicycles running.
7. Coordinate food shopping and student cooking groups.
8. Create and maintain an emotional atmosphere of trust and respect.
9. Manage a budget and account for all expenses.
10. Infuse the group with energy and model positive behavior.

Some of the challenges you may face in the course of a trip include:

- Encouraging the teenager who doubts his/her ability to keep up with the group (very common during the first week of the trip).
- Working with the withdrawn teenager who is having difficulty adjusting to the group-living situation.
- Maintaining a sensitive attitude toward the group's desires and needs while maintaining discipline and safety.
- Acting as a catalyst in getting the group to cooperate, share, and work together.
- Being way ahead of the group in planning menus, activities, and other events that require coordination.
- Dealing with incidents of anti-social behavior, including loud, rude and disruptive behavior, insensitivity toward others, and selfish, uncooperative attitude.

Boojum Institute for Experiential Education

Employment Policies and Procedures

EMPLOYMENT AT WILL

Employees at Boojum are free to leave Boojum at any time and likewise, Boojum reserves the right to terminate employees at any time. Thus, both you and Boojum have the right to terminate your employment at any time, with or without notice and with or without cause. This is called "employment at will." No one other than an officer of the corporation has the authority to alter this arrangement or to make any agreement contrary to this policy. Any such agreement by an officer must be in writing and signed by the officer.

Due to the service-oriented nature of the outdoor experiential education profession and the staffing demands placed on Boojum, the following restriction applies:

Having employees (especially Field Staff) not appear for work without notice or leave during a course could, in some cases, pose an unacceptable safety risk to other staff or clients or cause extreme injury to Boojum's reputation leading to loss of business. In light of this situation, we ask employees for at least a one-month notice prior to resignation of employment. This pertains primarily to Field Staff giving notice of withdrawal of commitment for field courses.

EQUAL OPPORTUNITY POLICY

Boojum Institute for Experiential Education is an equal opportunity employer. Our policy is to provide equal employment with the opportunity for development of skills and advancements within each employee's demonstrated expertise. We practice prevention of discrimination against any qualified employee or applicant on the basis of sex, age, sexual orientation, race, color, ancestry, religion, creed, national origin, disability, medical condition, marital status, or pregnancy.

Equal opportunity will be extended to all persons in all aspects of the employer-employee relationship, including recruitment, hiring, upgrading, training, promotion, transfer, discipline, layoff, recall, and termination.

Employment decisions are based on an individual's qualifications to perform the essential functions of the job and other professional skills and character traits, not on any mental or physical disability. It is Boojum's policy to make "reasonable accommodations" for qualified individuals. All requests for reasonable accommodations will be considered.

If you feel you have been discriminated against by any employee or client of Boojum Institute, please talk to the Staff Coordinator, Program Director, or Executive Director. They will then investigate the matter and attempt to resolve it with your cooperation and with as much confidentiality as possible. The formal investigation process will be similar to the investigation held in the event of a reported violation of the Sexual Harassment Policy. (See a description of that process in the General Information Section).

NEW EMPLOYEE INTRODUCTORY PERIOD

All new employees shall serve an introductory period of 60 work days commencing with their first day of employment. During that period, both Boojum and the employee will have an opportunity to deter-

mine whether further employment is appropriate. Boojum can extend the duration of the introductory period one or more times if, in its sole and absolute discretion, it determines that such an extension is appropriate. This in no way affects the Employment-at-Will Policy. The new employee will not be eligible for, nor earn any benefits during, the duration of the introductory period. An employee who successfully completes the introductory period will be notified of their classification and eligibility for benefits (if any).

The introductory period does not apply to returning staff if they return within two calendar years from their last work day unless there is a change of position involved.

WORK SCHEDULES AND OVERTIME

Boojum's established office hours are from 8–4 p.m., Monday through Friday. Full-time Administrative Staff are required to work eight hours a day and may take two 15-minute breaks, which will be compensated. In addition, they must take a minimum of a half-an-hour lunch, which will not be compensated. There is some limited flexibility available in work schedules depending upon individual Administrative Staff needs; however, these schedules must be negotiated and approved in advance by the Executive Director. Repeated incidents of tardiness or leaving work early may result in disciplinary action, up to and including dismissal.

For employees who are paid an hourly wage, any time over 40 hours within a week is considered overtime and will be paid at one and a half times the hourly rate. All overtime must be pre-approved by the Executive Director.

Field Staff are contracted on a daily basis and paid a daily wage, and it is understood and accepted that work periods in the field will be longer than eight hours per day and will fluctuate from day to day.

GENERAL INFORMATION

POLICY AGAINST SEXUAL HARASSMENT

Boojum Institute for Experiential Education is firmly committed to creating and sustaining an environment in which our "community" (for these purposes, to include: employees, volunteers, subcontractors, clients, students, chaperones, and visitors) can learn, teach, and work in an open atmosphere, free from all forms of harassment. In order to sustain an environment free of sexual harassment, it must be prevented and confronted when it occurs. In this policy, sexual harassment is defined and procedures are established for responding to complaints brought by any member of the Boojum community.

Sexual harassment consists of unwelcome sexual advances, requests for sexual favors, and other verbal or physical contact of a sexual nature where employment decisions are based on an employee's submission to or rejection of such conduct; or such conduct creates an intimidating, hostile, or offensive environment. Sexual harassment refers to behaviors unwelcome and unwanted, personally offensive to the recipient, which interfere with work and educational effectiveness, which violate the rights of its victims and co-workers, and which create a hostile and offensive work and learning environment. It is impossible to delineate here every action or all words or behaviors that could be construed as sexual harassment. Fundamentally, it is inappropriate for anyone in an educational or professional situation to be sexually harassed. Boojum will not tolerate any of the above behaviors, nor other objectionable activities that might be considered sexual harassment. No member of the Boojum community should feel that the fulfillment of her or his duties are obstructed or impeded by sexual harassment.

Boojum encourages individuals involved to attempt to resolve the conflict between themselves first. Individuals may choose to talk to a trusted senior member of the Boojum staff for guidance and assistance without a formal investigation being initiated. Choosing to use our mediation process to reach resolution is a further option. Any issues handled under these circumstances should be held in the strictest confidence among all involved, and no permanent written records will be maintained.

If you have a complaint of harassment by anyone in the Boojum community, we encourage you to:

- First tell the harasser to stop if you feel comfortable; often the harasser is unaware the behavior is unwelcome. This may solve the problem.
- If the behavior persists or you feel uncomfortable talking to the harasser, talk to the Staff Coordinator.
- If you feel uncomfortable talking to the Staff Coordinator (especially if he or she is the harasser), talk to the Program Director or Executive Director.

Individuals who choose to make a formal complaint will be assisted in putting the complaint in written form. All formal written complaints of harassment will be promptly and thoroughly investigated with as much confidentiality as possible. Individuals making a complaint are advised of the importance of preserving evidence and providing documentation that may be necessary to prove criminal sexual assault. For criminal sexual offense, the law enforcement authorities, including the local sheriff, may be notified, and a member of the Boojum community will be assisted in notifying such authorities if she or he so chooses.

In determining whether the conduct is indeed harassment, we will investigate the totality of the circumstances, the nature of the harassment, and the context in which the alleged incidents(s) occurred. The investigation will include interviews with all involved employees, including the alleged harasser and any employees who are aware of facts of incidents alleged to have occurred. All complaints will be handled promptly and will be kept as confidential as possible during an investigation.

If it is determined that a violation of the Boojum Sexual Harassment Policy has occurred, remedial action will be taken. Remedial action may also be taken if it is determined that there has been intentional misuse of these Sexual Harassment Policy reporting procedures.

A Boojum employee found to be the target of sexual harassment committed by another Boojum employee will be provided with any lost terms, conditions or benefits of employment which apply. Further, the harassed employee may be assisted in obtaining counseling or other support services if deemed necessary and if such services are reasonable and available.

A Boojum community member found to be in violation of the Boojum Sexual Harassment Policy will be subject to disciplinary action deemed to be appropriate by the Executive Director, from a warning in his or her personnel file, up to and including termination for employees and dismissal from a field course for clients, participants, and chaperones.

GRIEVANCE PROCESS AND POLICY

The purpose of this process is to provide the opportunity for discussion of any request or complaint. The definition of grievance as used in this section is limited to a complaint or request of an employee that involves the interpretation or application of, or compliance with, the provisions of these personnel policies.

It is the policy of Boojum that all employees are entitled to a grievance procedure to protect their individual rights, and all grievances and will be fairly heard.

PROCEDURES

Step 1:

Any grievance must be initiated through the grievance procedure within 30 days of the occurrence of the event on which the grievance is based and shall be settled in the following manner:

A. Any employee who believes that he/she has a justifiable request or complaint shall discuss the request or complaint with the executive director or supervisor. If the Executive Director or Supervisor and the employee, after full discussion, feel the need for aid in arriving at a solution, they may, by agreement, invite such additional employees from the Institute as may be necessary and available to participate in further discussion, but such additional participants shall not relieve the Executive Director or Supervisor and employee from the responsibility of solving the problem.

B. The foregoing procedure, if followed in good faith by all parties, should lead to a fair and speedy solution of most of the complaints arising out of the day-to-day operation of the Institute. Whenever either party notifies the other that further discussion of the complaint cannot contribute to its settlement, the Executive Director or Supervisor shall then give his or her oral response to the complaint within three days.

C. If the Executive Director's or Supervisor's response is not appealed to Step 2, as provided below, the grievance shall be considered settled on the basis of such response and shall not be eligible for further appeal.

Step 2:

A. In order for a grievance to be considered beyond Step 1 it must be filed in duplicate with the Executive Director within three days of the Supervisor's oral response. It shall be dated and signed by the employee and include such information and facts as may be of aid to the Institute and the employee in arriving at a fair, prompt, and informed decision. The Executive Director shall sign and date the grievance form and return one copy to the employee.

B. Grievances properly appealed to Step 2 shall be discussed by the supervisor and the employee within seven days following the date of appeal. They may, by agreement, invite such additional employees from the Institute as may be necessary and available to participate, but their attendance shall be limited to time required for their testimony and shall not relieve the Executive Director and employee from the responsibility of solving the problem.

C. Grievances discussed at this step shall be answered by the executive director in writing no later than five days after the meeting.

D. If the Executive Director's decision in this step is not appealed to Step 3, as provided below, the grievance shall be considered settled on the basis of such decision and shall not be eligible for further appeal.

Step 3:

A. In order for a grievance to be considered further, written notice of appeal shall be served within 10 days after receipt of the Step 2 decision by the employee upon the Board of Directors. Notice shall state subject matter of grievance and objections taken by either party to previous dispositions.

B. Grievances properly appealed to Step 3 shall be discussed at a meeting between some members of the Board of Directors and the employee within 10 days following the date of appeal.

C. They may, by agreement, invite such additional employees from the agency as may be necessary and available to participate, but their attendance shall be limited to time required for their

testimony and shall not relieve the Board of Directors and employee from the responsibility of solving the problems. The grievance discussed in such meeting shall be answered in writing by the Board of Directors within 10 days after the date of such meeting.

D. The decision of the Board of Directors is final.

**See Grievance Form, page 118.

STANDARDS OF PERFORMANCE AND CONDUCT

Because we provide a service to our clients, their impressions of Boojum employees are extremely important. While we don't expect you to look as though you just walked off the pages of an L.L. Bean catalogue, we do expect each employee to present the image of someone who takes care of themselves. Clothes should be clean and not unnecessarily revealing. Personal cleanliness and hygiene should be maintained at a high level. Civility, respect, and patience should be evident in your conversations with other employees and clients at all times.

Boojum Institute reserves the right to terminate employees whose actions injure or tend to injure the interests of the corporation. Similarly, reporting to duty under the influence of alcohol or drugs, or the use of or possession of the same anytime at work, committing any acts of harassment, theft, dishonesty in connection with work including falsification of company records, fighting, or the possession of a weapon on Boojum property or on course, or any form of willful misconduct may be cause for discipline, up to and including immediate discharge. Further reasons for discipline up to and including immediate discharge are listed below:

1. Non-compliance or disregard of any Boojum policies or procedures, especially those regarding risk management and safety, unless a reasonable explanation is offered and accepted by Boojum.
2. Insubordination, including improper conduct toward a supervisor or refusal to perform tasks assigned by a supervisor in the appropriate manner. (It is implied here that the supervisor is asking you to do something that is reasonable.)
3. Unsatisfactory performance.
4. Harassing, threatening, intimidating, or coercing any other employee or client. This includes falsely accusing or reporting another person of harassment and causing an investigation to take place.
5. Release of confidential information about Boojum, other employees, or clients.
6. Absence for three or more consecutive work days without notice to your supervisor, unless a reasonable excuse is offered and accepted by the Executive Director.
7. Possession, distribution, sale, use, or being under the influence of alcoholic beverages or illegal drugs while on duty or while operating a vehicle leased or owned by the company.
8. Theft or unauthorized removal or possession of property from Boojum, other employees, or clients.
9. Misusing, destroying, or damaging property of the corporation, other employees, or clients.
10. Lying, intentionally misleading, or altering, falsifying, or destroying any documents or records of a personal, official, or company nature.
11. Bringing onto Boojum property dangerous or unauthorized materials such as explosives, firearms, or other similar items.
12. Fighting or provoking a fight while on duty on Boojum owned or rented property.

SMOKING AND TOBACCO USE POLICY

Smoking is not allowed inside Boojum owned, rented, or leased buildings. Tobacco use of any kind is not allowed by persons under 18 years of age. During field operations, if Boojum personnel choose to use tobacco, it must be restricted to times when they are out of sight or beyond reasonable chance of discovery by students or clients. When anyone on a Boojum course smokes, local rules and regulations will be followed, and every precaution will be taken to ensure that a fire is not caused.

DRUG AND ALCOHOL USE POLICY

Use of drugs (unless prescribed by a physician) and controlled substances is incompatible with the risk management standards of the Boojum Institute and will not be tolerated in the workplace or at any time while on duty by employees or clients. Boojum employees or clients who possess or use illegal drugs on course will be subject to dismissal from the course. Such dismissal action by the Course Director or Senior Guide shall be made out of consideration for:

1. Applicable State laws
2. The integrity of the program
3. The educational purposes of the Boojum Institute

During selected courses (as designated by the Executive Director), alcohol may be consumed by adult clients and employees "after hours," when all course activity has ceased for the day. We emphasize moderation at these times. However, at no time will a client or employee engage in activities on course after having consumed alcohol.

During all Boojum courses, it should be made clear to participants that it is the responsibility of everyone involved (participant and employee alike) to inform Boojum staff members that he or she is taking any medication whatsoever. This information could be important in an emergency.

It is possible that an employee or client may become impaired after taking over-the-counter or prescribed medication. If this occurs, we expect Boojum employees to make the best decision regarding the involvement of a co-worker or client.

THE MEDIATION PROCESS

This "self-help" process was designed to fill a need among staff who are often required to work closely together. The mediation process provides a structure that can help bring understanding and may lead to an agreement. Occasionally there are differences of opinion or style between co-workers that are significant enough to affect their ability to work together. We encourage employees in this position to use this mediation process. It helps to involve other staff who have some experience with the process. This system is not perfect; however, we have found it to work quite well when used with good intention.

GOAL

Increased understanding of and ability to interact with another, through each participant hearing the feeling, perceptions, and experiences of the other and being heard in return. The goal may be emotional understanding or release only or may include a specific solution.

DYNAMICS NECESSARY FOR EFFECTIVENESS

1. Willingness to hear, to feel, and to try to understand another's perspective and experience
2. Willingness to be responsible to the relationship (and to the group)
3. Willingness to look at one's self honestly
4. Desire to reach an understanding and a workable solution
5. Willingness to take responsibility for finding a solution (this is the responsibility of the participants, not the mediators. Mediators are there to help)
6. Review and agree to Guidelines for listening and Giving Feedback

ROLES

Participants: The people who seek mediation to improve their understanding of and interaction with each other.

Mediator(s): These folks observe and comment on:

1. The dynamics between the participants
2. Their own responses and experiences relative to the situation to keep the whole community context present
3. Offer perceptions, insights, and suggestions to the participants
4. Point out when statements and actions are outside Guidelines for Listening and Giving Feedback.

Facilitator: One of the mediators who assumes the role of:

1. Directing conversational traffic
2. Keeping an eye on time
3. Making sure time to talk and listen is equal
4. Calls for closure, etc.

Note: If there is only one mediator, then that person acts as both Facilitator and Mediator.

GETTING STARTED

1. Someone initiates the process by asking the other(s) if they are willing to participate or if a mediation is requested by a third party.
2. Participants decide on the number of people, who and what roles they want mediators to play (all are objective, particular support people, both?).
3. All parties are asked, and a time, duration and place are arranged. The issues to be discussed are stated and clarified to all so folks have time to think about it ahead of time.

DURING THE MEDIATION

1. Begin by participants stating their goal for the mediation (better understanding, specific outcome?).
2. Participants take turns, uninterrupted, conveying specific circumstance and emotional experience. The past experience of each person is very helpful to allow fuller understanding of why we do and feel what we do.
3. Do a few rounds of this until all the known issues are on the table.
4. When it feels appropriate, mediators can begin to add perceptions, insights and specific suggestions as well as ask for further clarification or detail.
5. Continue this process until participants feel and state at least partial completion of goal or specific agreement is reached. An absolute resolution is not necessary; however, encouraging new attitudes and helpful actions may be beneficial.

CLOSURE

6. Facilitator asks each participant to summarize the experience and state perceptions and actions to follow. Make time for writing this down if appropriate.
7. Participants agree on a time they will check in with each other and compare "notes" on how it is going.
8. End with an opportunity for each person to express appreciation for participating and an evaluation of the process if appropriate.

Boojum Institute for Experiential Education

Grievance Form

Name: _____

Position Title: _____

Step 1: Informal Contact with Executive Director

Nature of grievance:

_____

_____

_____

_____

_____

_____

_____

Contact with supervisor:

_____

_____

_____

Date of hearing and disposition: _____

Signature: _____ Date: _____

Step 2: Contact with Supervisor

Date of appeal: _____

Date of hearing and disposition: _____

Signature: _____ Date: _____

Step 3: Contact with Board of Directors

Date of appeal: _____

Date of hearing and disposition: _____

Signature: _____ Date: _____

Boojum Institute for Experiential Education

Personnel Policies and Procedures

PERSONNEL FILES

Personnel files are maintained for each employee and are kept in the Boojum office. Personnel files are regarded as confidential except on a need-to-know operational basis and for potential employers calling for work references. Employees are welcome to inspect their own file on an as-needed basis. If you would like to inspect your file, please contact the Staff Coordinator or Program Director.

It is against Boojum policy to release any personal information (non-work related, i.e., telephone number, address, SSN, etc.) pertaining to any other employee without permission from that employee.

PERFORMANCE EVALUATIONS

All Administrative and Field Staff receive performance evaluations. The evaluations for Administrative Staff will happen at least once yearly on a rotating basis. These evaluations will include all or most of the administrative team and involve feedback from them as well as give the person being evaluated a chance to comment on her/his own job performance. A written record will be maintained in each individual's personnel file.

Field Staff are evaluated by other members of their field team after each course, and the written evaluations are kept in each individual's personnel file. This information is available to other staff on a need-to-know basis. You should also be aware that there may be evaluative information about individual Field Staff contained in past course files. We ask client chaperones to comment on the program (including Boojum staff) after each course. You are welcome to inspect these evaluation forms. Please contact the Staff Coordinator to arrange a convenient time.

EXIT INTERVIEWS AND EVALUATIONS

At the end of each employee's employment term, there will be an exit interview with her/his immediate supervisor or the Executive Director, regardless of the reason for leaving Boojum. The intent of this meeting is to allow the opportunity for both employer and employee to express their perspective on the job held by the employee as well as to formalize any relative paperwork. Any company documents or items will be returned by the employee at this time.

THE EVALUATION PROCESS

At Boojum, we believe that in order to maintain good teamwork and to better serve our students and each other we must be perceptive observers and give specific feedback about performance to each other (both peers and students). It is our responsibility to give individuals the knowledge of how best to use their strengths and the tools to improve weaknesses. Improved self-assessment by comparison to others' opinions regarding performance is an important benefit of an effective evaluative process. Performance evaluations are also an integral part of Boojum's personnel policy. They provide an objective, consistent, and fair way to gauge each employee's effectiveness. The evaluation process should inform employees of their standing in the organization and communicate expected standards of performance. They are used to discuss work standards, areas where improvement is needed, career development potential, and possible future opportunities within Boojum. All evaluations, verbal and written, formal or informal, should be honest and balance both praise and constructive feedback.

VERBAL EVALUATIONS

These should be an informal, ongoing, natural part of every day and can also be a structured formal process (used often here at Boojum in council format).

Whether verbal evaluation is conducted one-on-one or in a group, the following guidelines should be used. Also please refer to the Listening and Giving Feedback Guide and the Council Format Information provided in the Field Manual.

1. To be most effective, it needs to be timely (most often immediate) and thoughtful.
2. Use only firsthand feedback and information whenever possible.
3. Evaluate behavior, and avoid judging character or intent.
4. Describe the activity the person is doing that causes emotions in you. How can you tell when to say something to someone else (whether they are your student, peer, or supervisor)? Usually your emotions are the first thing you notice. If you can describe the activity (however trivial, subtle) the person is doing that causes your feelings, you should talk about it. If you can't relate any activity to your feelings, it may be just differences in style, your mood, etc.
5. Give possible solutions, and give consequences (positive or negative) of these solutions or avoidance of these solutions.

WRITTEN EVALUATIONS

If verbal evaluations are ongoing and thorough, there should be no surprises on written evaluations. Their purpose is to: record employee performance for a period of time (not just the last few days) and to be a useful tool to clarify or emphasize points for the individual.

We need specific evaluations to help develop individuals and the entire organization. We look at each person's development holistically, by watching trends rather than specific incidents. Each individual, when evaluating another, gives us one piece of the whole. Points to remember when writing evaluations are:

1. Be honest and clear. Write your observations even though you've discussed it with the individual. Make a note, if you wish, that it has been discussed and/or improved.
2. Realize these are to be used in a positive way by Boojum administrators to help develop individuals.
3. Your opinion counts even when you are a new employee evaluating a senior employee.
4. Use specific behaviors to explain performance. Occasionally you may need to write, "I have a gut feeling and I am not sure exactly why." Try to limit these (think about what actions caused that gut feeling), but don't ignore them. Try to give specific ways (steps) to improve.
5. We use your comments and recommendations to determine promotions and placement. Remember your responsibility to future students and co-workers, and strive for high expectations and to promote excellence both in the office and in the field. You do individuals a disservice to recommend that they be placed in a position where they are not yet ready to succeed.

To be most effective, written evaluations should be concise and specific. Choose words carefully, and describe behaviors so that a third party can best understand.

CHAPTER IV

Transportation

The Venture Program at University of North Carolina

Policies for Driving Venture Vans

The Venture vans are to be used only for official University business. The primary usage is to support the Venture program; however, when available, vans may be used for Cone Center business as well. Other usage would require special permission of the Venture Director. Operation of these vehicles must be made in full compliance with applicable campus ordinances and state laws. The Venture Director is responsible for ensuring that (except for Shuttle Drivers for Conferences, who will be coordinated by the Assistant Director for Technical Services): 1) any group planning to use the Venture vans understands that only those individuals who have become an "approved" Venture van driver may operate the vehicles; 2) the group has "approved" drivers; and 3) designated individuals from the group are provided the opportunity to complete the steps to become an "approved" driver.

To become an "approved" Venture van driver:

A. Drivers must be employed by Venture, The Cone University Center and/or the University of North Carolina at Charlotte, or a VOLTAGE trainee to be able to drive a Venture Van.

B. Drivers must have a valid driver's license. Staff should make a photocopy of their license on a Vehicle Driver Information Sheet. The rest of the form with info on the driver's driving record should be completed. Venture staff should give this form to the Venture Secretary to be included in the driver's personnel files. Other Cone Center staff should provide this form to their supervisor. Each driver is responsible for completing and turning in the Driver Info Sheet. The Venture Secretary is responsible for maintaining the Driver Info Sheets for Venture Staff and for special situations. The Cone Center main office is responsible for maintaining the Driver Info Sheets for shuttle drivers. Venture will conduct a search with the N.C. DMV on a yearly basis to obtain official driving records. Driving will be limited to those who meet the minimum requirements as stated in the Venture Driving Regulations. We use the same standards as School Bus Drivers in asking that all new vehicular accidents or traffic violations be reported to the Venture Director within two weeks of their occurrence or prior to driving the van after such an occurrence, whichever comes first.

C. Drivers should read and become familiar with the Venture *Orientation To and Guidelines For Venture Vans* manual.

D. Drivers must successfully pass a written Driving Exam for Venture Vans. There are 30 questions, 26 questions must be answered correctly. Wrong answers should be reviewed with the person taking the test so they understand why they missed the question. A person who does not pass the test may take it again, though it cannot be taken twice on the same day. For Venture staff, this test will be given by an

appropriate member of the Venture staff as determined by the Venture Director. The Assistant Director for Technical Services will provide and score the tests for shuttle drivers. If other individuals need to take the exam, special arrangements will need to be made with Venture.

E. It is important that individuals get some experience handling a van before having to do so with a load of passengers. After successfully passing the written exam, those staff members who have not previously driven a loaded 15-passenger van should take a short driving practice loop before driving the van loaded with participants. This practice will be monitored by an appropriate Venture staff for Venture drivers or in special situations. Appropriate Operations staff will monitor the practice drive for shuttle drivers.

F. For those planning to drive a Venture van with a trailer, a practice drive with the van and trailer should be made prior to driving the van loaded with passengers while pulling a trailer.

G. The Venture Director may make exceptions to this policy based on individuals' driving history or special needs.

ORIENTATION TO AND GUIDELINES FOR VENTURE VANS

I. VAN PREPARATIONS before driving

A. While walking around the van, do a quick visual inspection of the exterior looking for new dents, checking light covers, tires, etc. Basically you are just looking to see if something is obviously wrong (i.e., flat tires, light fixture broken, etc.).

B. Adjust the seat, mirrors, and tilt-steering (on '92 Van) before driving. Do not adjust the tilt-steering or the seat position while the van is moving.

C. Check gas, and fill if needed, at Physical Plant if possible (both tanks if Blue Van). The vans take unleaded gas of at least 87 octane.

D. Check oil and add 10-30 weight if low.

E. Check water level in radiator or reservoir, and add water and/or anti-freeze if low.

F. Check to see if bank envelope with credit cards is in the van. It is important that the vehicle is kept locked when no one is with it, to avoid having the credit cards (or other items) pilfered. In addition to locking all doors, it is essential that all window latches also be secured.

G. Clean trash from inside at both beginning and end of trip.

H. Make sure that the first aid kit, tool kit, jumper cables, and backboard are in the van.

I. Make sure van is in proper running condition. Report any problems to the Venture Director in writing immediately after return from trip.

J. Have your driver's license with you when driving.

II. SAFE DRIVING GUIDELINES:

A. When backing out from under the Cone Center or in any tight spot:

1. If there is someone else in the van with you, have him/her get out to direct you around posts, cars, and other objects that may be in your way.

2. If you are alone, do not back up until you have walked behind van to examine obstacles and are certain that you will not hit something.

B. Basic safety

1. Drive defensively—others do not. This includes constantly being alert to possible trouble. Look way ahead and if you see flashing lights, vehicles with brake lights on, children or animals near the roadway, cars getting ready to pull out of side streets or driveways, or stoplights that may be getting ready to change, then remove your foot from the accelerator (or turn off cruise-control), and be prepared to brake. Anticipate other drivers' actions, even their inappropriate actions.
2. Do not exceed posted speed limits! Always drive more slowly and carefully than you would in your own vehicle.
3. Do not exceed your sight distance braking ability. In other words, you need to be able to stop if you see something in the road. In heavy rain, snow, or fog, or at sharp curves or blind corners, you need to be able to stop if you suddenly come upon an obstacle in the roadway. Anticipate the possibility that something might be there.
4. Obey traffic laws.
5. If you have drunk any alcoholic beverages in the previous 6 hours, do not drive the van. We are not just talking about the legal limit of .1 % of alcohol in the blood; we are talking about any alcohol. The same obviously goes for any drugs that can affect one's driving ability—especially illicit drugs but also legal drugs that cause drowsiness, etc.
6. The van is long! When turning corners, it is necessary to take wider turns than in a car due to the length of the van. Be careful not to sideswipe things on the inside of the turn. When changing lanes, be extra careful. It is hard to see behind (see #11).
7. The van is wide. On narrow roads or where construction barriers create narrow lanes, slow down, drive in the wider lane if possible, and use extra caution.
8. The van is tall! With the roof rack on top, it stands at over 8 feet tall. Remember this when driving under low underpasses or overhanging roofs (like at gas stations), car ports, signs, etc. If you are unsure whether the van will fit under something, have someone get out to watch while you drive very slowly under it, or just go around.
9. The van is heavy! It will take longer and farther to stop than a car. This is especially true when the luggage rack is full or when pulling a trailer. Plan ahead, look ahead, and start braking earlier than you think you need to. Don't tailgate!! Allow extra stopping space.
10. Because the van is heavy you should use the transmission to help hold your speed down when descending steep or long hills that require braking. Otherwise you can overheat the brakes. Downshift to a lower gear. You should be able feel the braking effects. In the '92 van, you should push the overdrive button on the end of the gear shift selector so the OFF light is lit.
11. Realize that the mirrors on the passenger side distort distances. Compare where the end of the van appears to be with other vehicles when deciding whether to change lanes, etc. It is usually a good idea to look for other vehicles directly by turning your head.

12. Drive with both hands on the wheel. This is especially important in heavy traffic, in bad weather, or on winding roads. Accidents are more likely when the driver is paying attention to other things, for example, changing the radio station, trying to eat, trying to read a map, etc. It is good to have the person riding shotgun navigate and assist with reading highway signs and with informing driver which turns to take. This person can also change the radio, etc.
13. When driving in bad weather (rain, snow, fog, slippery roads), reduce speeds appropriately, and give yourself more braking distance. Use a "squeeze technique" on the brakes by pushing on the brake pedal with steadily increasing force (Note that if vans have ABS, this technique is not recommended or necessary). If the wheels lock up, release the brake pedal, and start the squeeze method again. This is referred to as pumping the brakes. Consider using a lower gear on hills.
14. Monitor the dashboard gauges while driving. If a warning light comes on (i.e., oil or temperature) or if a gauge indicates a problem, safely pull over, stop the engine, and check to see what the problem is.

C. Passengers

1. The driver is responsible for the safety of all passengers in the vehicle.
2. All passengers must be buckled up: N.C, State law!
3. The driver should not allow any horseplay that might lead to an injury or driver distraction.
4. Drive in such a way that will help instill confidence in your passengers. Especially on curvy roads, the back of the van can feel like a roller coaster. Slow down, and try to take curves as smoothly as possible. Try not to do lots of accelerating and then braking (especially on hilly or curvy roads), but rather use a more mellow style. Be smoooooooth.
5. Smoking and/or consumption of alcohol is prohibited in the vans.
6. When loading and unloading passengers in the '92 van, it may be worthwhile to hang the shoulder/seat belts on the hooks provided on the passenger side of van, to prevent people from tripping or getting tangled in the belts.
7. You should not drive long distances with the rear windows open, since fumes can enter the van.

D. Use of luggage rack

1. Gain access to the rack by using the ladder on the rear of the van.
2. Falling off the van while trying to load the rack is not a good idea. It is safest to stand in the rack and bend at the knees to reach down to get gear that others hold up to you. Heavy gear should have two people up top receiving it. It is sometimes helpful to have a person stand on the back bumper, holding onto the ladder with one hand and passing items up to someone in the luggage rack with the other hand. Do what you can to warn and supervise participants, to prevent anyone from falling off the top. Possibly use spotters, and encourage extra safety.
3. Do not stand on the van roof; it causes dents. Stand on the rack.
4. Install the cover over the rack if there are items in the rack, and tie the cover down all around. If there will be any high-speed travel (over 45 mph), install three belts (front, middle, and rear) to keep cover from blowing too much. If there are only a few items, they can be tied to the rack rather than using the cover.

5. Check for loose ropes/straps hanging from the luggage rack, and secure.
6. Obviously, do not drive with people on the rack, roof or ladder.

E. When driving into the night on long trips:

1. Change drivers every 4 hours at a minimum to avoid driver fatigue. If the current driver is having trouble keeping his/her eyes open or is feeling like he/she is starting to fall asleep, s/he should pull over at the first safe spot to do so and change drivers. Even if this driver has been driving only 15 or 20 minutes, it is okay to request a replacement. Remember that if you fall asleep at the wheel, even for just a few seconds, the van could go off the road and everyone in the van could be injured. Don't drive when you are too tired to do so safely.
2. On overnight and long trips, the shotgun passenger should stay awake to assist the driver with navigation details and to help the driver stay awake with lively conversation.

F. When driving on dirt roads

1. On all narrow mountain dirt roads, use either first or second gear. Speed should not exceed 25 mph.
2. At blind corners, slow down, stay toward right side of road, honk horn if appropriate. Anticipate that a car may be coming around the bend.
3. It is best to drive in the middle of a narrow dirt road, except while making a sharp turn or when being approached by another vehicle; shoulders tend to be very unstable and can give way under a vehicle. This is how a Venture van once rolled off the road to Table Rock.
4. When being approached by another vehicle on a narrow dirt road, move slightly to the right, and stop. Give the other driver a chance to decide what to do. If you are on the dangerous side of the road (steep drop-off), be careful not to pull off onto an unstable shoulder. You may need to back up to a wider part of the road.
5. Make U-turns only at safe turn-arounds. Never make them on narrow mountain roads.
6. Avoid impassable jeep trails. Vans are not designed for them.

G. Pulling a trailer

1. When hooking the trailer to the van, make sure the ball makes a good connection, lock the hitch down, use safety pin/bolt, and install the safety chains.
2. Make sure the lights on the trailer are working. If they are not, try reconnecting or jiggling the plug. If they still don't work, you may have to make a repair as best you can.
3. Make sure everything on the trailer is secure.
4. At every gas stop, meal stop, or change of drivers, check the trailer connection to make sure it is secure, and check that the items on the trailer are secure. It is also a good idea to check the trailer wheel hubs by pushing on the tire to see if the wheel appears loose on the hub. If it is, find a repair shop, or try to fix it yourself. It is not safe to drive with a real loose hub since it is possible for the wheel to fall off.
5. When pulling a trailer, it is even more important to take wide turns to avoid sideswiping things on the inside of the turn.
6. When changing lanes, it is important to compensate for the extra length when checking in the mirror, etc.

7. The van will be even heavier when pulling a loaded trailer. Give yourself longer distances to stop and to accelerate.
8. Backing a trailer takes getting used to. You have to turn the steering wheel opposite the normal way. You should practice before you have a load of passengers and boats out on a trip. If you don't have lots of experience and confidence in your backing ability, have another staff who does back the van, or have all the passengers get out of the van while you attempt it. The best option is sometimes to disconnect the trailer, maneuver it where you want it using people-power, and then reconnect the van.

H. In emergencies

1. In the case of an accident, follow regular emergency procedures. Stay on the scene until police arrive; do not attempt to assess blame. Get the names of all people in accident; the names, addresses, phone numbers, driver's license info. and insurance info. from other drivers; and provide this info. about yourself & Venture to them. Get names and phone numbers of witnesses. Draw a diagram of the accident scene and what was happening just before and at the moment of the accident.
2. If the vehicle goes off the road, do not endanger passengers by trying to push it back on the road.
3. Use initiative at service stations or other stops to correct safety hazards.
4. If the brakes don't seem to be working well, you can attempt to adjust them by backing up slowly and then stepping on the brakes a few times, as described on page 147 of the '92 van's manual.
5. If you have a flat tire, it is strongly suggested that you refer to the vehicle manual for the best jacking locations, etc. Get well off the road, engage the parking brakes, chock the wheels, do not climb under the vehicle when it is on the jack. In other words—BE CAREFUL.
6. Do not continue to operate a vehicle that is unsafe.
7. In any accident or mishap that will require repairs to the van, have a police report done ASAP by whatever police have jurisdiction over the location where the accident happened, and obtain a copy of the report or arrange for one to be sent to Venture for insurance reasons. Inform the Venture Director in writing immediately upon return to campus. You will be asked to contact auxiliary services to initiate the paperwork needed for getting repairs done. You may also be asked to obtain any necessary estimates.
8. In an accident or mishap that involves personal injury, call Campus Police at (704) 547-2200 ASAP, and inform them of details. Ask them to contact the Cone Center Director or Venture Director. If the injury is serious, ask them to initiate the Venture Emergency Procedures. Do not make statements to the Press, but rather refer them to the Office of Public Information at the university.

III. Van Orientation:

A. Starting vans

1. When starting vans, transmission should be in "Park," your foot should be on the brake, and the lights and other accessories should be turned off. Turn the key to "On" and make sure all the warning lights work.

- To start '92 van: do not touch accelerator, since it is fuel-injected; just turn the key. If after two or three tries it doesn't start, turn key to "off," wait

two minutes, then push accelerator to the floor, and hold it there; turn the key to start. When it starts, release key, and then release accelerator gradually as the engine speeds up. If it still doesn't start, check manual (page 60) for checking the fuel pump shut-off switch.

- The blue '86 van can be given gas with the pedal, listening to decide how much gas to give, etc.
- For either van, do not keep key in "start" position for more than 15 seconds at a time.

B. Overdrive ('92 van only)

1. In most cases, you will drive with overdrive button on (push button on end of gear shift lever); the "off" light should not be lit.
2. You would want overdrive button off if the vehicle is constantly switching into overdrive (you can hear the engine switching back and forth), which can happen in mountainous areas, at high elevations, or with heavy loads. Generally you shouldn't use overdrive whenever you're pulling a loaded trailer in hilly terrain or on any uphill slopes.
3. Do not use overdrive (turn it off) when using the transmission to hold down speeds when coming down hills.

C. Cruise-control ('92 van only)

1. If you are not familiar with cruise-control, read manual (page 98-103).
2. If you are familiar with cruise-control, the buttons are on the steering wheel, and they are fairly self explanatory.
3. To adjust the speed slightly, this system allows you to "tap" the accel or coast buttons to speed up or slow down at 1-mph increments.
4. When using cruise control, it is imperative that you maintain full attention to the road and your driving. This is not auto pilot.
5. DO NOT USE CRUISE CONTROL ON SLIPPERY ROADS, ON WINDING OR UNPAVED ROADS, IN HEAVY TRAFFIC, WHEN YOU SEE POTENTIAL PROBLEMS ON THE ROAD WAY AHEAD, OR IF YOU ARE SLEEPY.

D. Engine compartment (raise hood)

1. Oil dipstick: Check at all fuel stops.
2. Brake fluid: Check before long trips.
3. Coolant tank: Check before long trips.
4. Transmission fluid dipstick: Check before long trips.

E. Rear compartment

1. Spare key (taped to back of license plate)
2. Spare tire. For '92 van, tire is under the rear of van. Insert the tire iron in access hole just above the rear bumper (with the back doors open), and turn it counterclockwise to lower the tire (page 190).
3. Jack and lug wrench
4. Tire chains, if available. Spare boat trailer hub (if taking trailer).

F. Tires

1. Make sure tires have proper inflation (usually 60 lb. of air pressure).

G. Inside Van

1. Backboard under seats for all Venture trips and programs at GIC and HRC.
2. Tool box, jumper cables, oil
3. First aid kit

H. Dashboard

1. Gate cards (always remain in vans)
2. Fuse panel under dash
3. Money bag containing credit cards, registration, van manuals
4. Ice scrapers, paper towels, and dry gas (in winter) in front door pockets
5. When using the air conditioner, it takes less energy on "Max" than on "normal." The difference is, "max" uses recirculated air and "normal" uses outside air.

IV. Becoming an "approved" Venture van driver: See "Policies for Driving Venture Vans"

A. You must have a valid driver's license. Make a copy of your license on the Vehicle Driver Information Sheet, and complete rest of form with info. on driving record. This form should be given to your supervisor.

B. Read and become familiar with this manual.

C. Successfully pass a written exam on Venture driving procedures.

D. Complete a driving practice loop on campus with an approved tester.

V. Be aware of past van accidents so we can learn from our mistakes.

1. Sideswipes. Multiple times our vans have hit the poles in the loading dock area of the Cone Center. They have also hit trees along the dirt road at HRC. Once it hit against the ticket machine on the way to upper parking deck by Cone Center.
2. Top swipes. Once a van hit a sign over a parking area at a place of business. Once the van hit at a car port roof during a retreat.
3. Back bumper. Multiple times the van has been backed into a pole in the loading dock area of the Cone Center.
4. Major. Van was rolled on a dirt road (to Table Rock) when it got too close to the shoulder and the shoulder gave way.
5. With trailer. Trailer hitch came loose on a long trip. A boat came loose at the rear and slid part way off and was dragged. A wheel bearing on a trailer almost came apart. Paddles have fallen and bounced out of the trailer. Outward Bound has had loaded trailers roll at high speeds on interstates.

BE CAREFUL OUT THERE!!!

Camp High Rocks

Vehicle Policy

Camp High Rocks owns and rents vehicles for program use. The number of vans rented depends on expected program needs. Insurance on each vehicle is provided by Morrow Insurance Agency.

GENERAL POLICIES

Capacity

1. Vehicle size determines capacity allowed. The following guidelines are used:

Camp bus	2–3 per seat depending on size of campers
Armada rental vans	15
Red van	12
Mini-vans	6
Other vehicles	limited by seat belt availability

Permitted Drivers

1. The program director, assistant director, directors, or other designated personnel will determine vehicle use and driver assignment during each session.
2. Camp vehicles will be driven by prior authorization only.
3. Drivers transporting campers should be over 21 years old. Drivers transporting equipment should have appropriate licenses. Drivers of the camp bus need a CDL license.
4. All drivers will sign a Release of Driver Information which allows Morrow Insurance to run background checks on licenses for the purpose of driving camp vehicles.
5. During staff orientation, each activity area head will observe potential drivers on various out-of-camp trips. Drivers deemed to need greater training will not drive vehicles with campers until activity head feels comfortable with her/his skills. Directors will determine permission for drivers of vehicles with trailers.

General Driving Standards

1. Campers and staff should observe basic risk management principles while driving and riding in a vehicle, including:
   a. wearing seatbelts in vehicles that have them
   b. remaining seated while the vehicle is in motion
   c. refraining from horseplay
   d. being aware of the driver's need to concentrate
   e. keeping all parts of their bodies within the vehicle
   f. respecting others inside and outside the vehicle

2. Drivers should observe basic driving risk management principles, including:
   a. observing the posted speed limits
   b. observing appropriate traffic signs, railroad crossings, school zones
   c. adjusting driving to respond to environmental conditions such as visibility, type of road, time of day, other traffic
   d. changing drivers if tired
3. In general, drivers should fill the gas tank when campers are not in the vehicle, such as when returning from dropping off a trip.
4. In the event of a flat tire, staff may use the vehicle manual to help direct the repair. Using considerations of location and weather, campers should be unloaded during the process of repairing the tire. Such repair should be reported on the Trip Report Form upon return to camp.

Loading and Unloading

1. Drivers should select loading and unloading areas where the vehicle can be pulled completely off the road.
2. Drivers should instruct campers as to how they may assist in loading or unloading. In certain instances, only staff will be able to assist because of the pull-off location. In general, campers should not be on the road side of the vehicles unless sufficient space exists to allow for unloading without stepping into the road.
3. Campers should not climb on the top of a van or trailer during the unloading process. It may be necessary for campers to climb on the side of the trailer to untie ropes.

Other General Policies

1. Vehicle keys will be kept in the camp office. Drivers will pick up keys attached to clip board containing Trip Report Forms. Both keys and completed trip reports will be returned to the office on the trip's conclusion.
2. Counselors should not drive a camper in her/his personal vehicle without the approval of camp administration.

In Camp

1. Camp speed limit is 10 mph. Camp road speed limit is 17 mph.
2. Counselor vehicles should be parked in the counselor parking lot beside the gym. If returning after 9:30 p.m., counselors should park in the main lot to avoid driving through camp and waking up campers. The following morning, counselors should move cars to the appropriate lot.

Vehicle Maintenance

1. Vehicles will hold appropriate federal, state, and county inspection certifications.
2. A weekly checklist log is kept of each vehicle. The checklist includes:
   a. oil level
   b. water/coolant level

c. tire inflation
d. spare tire and tools
e. first aid kit
f. fire extinguisher
g. info. folder
h. interior generally clean
i. exterior generally clean

If needed, missing items are replaced or added.

3. A maintenance log is kept for all camp-owned vehicles. Items on this log include:
   a. oil changes
   b. water/coolant changes
   c. washing/waxing
   d. tire pressure
   e. tire rotation/balancing
   f. brake check
   g. other repairs

VEHICLE INVENTORY

1. Vehicles transporting campers contain first aid kits with the following materials:
   a. protective face mask for CPR
   b. gloves
   c. primary care bag including gauze, simple band-aids
2. Vehicles transporting campers contain a form of emergency signaling such as reflectors, cones, or glow-tape.
3. Vehicles transporting campers contain "information packets," which include the following information:
   a. local area maps
   b. driver information sheet on procedures
   c. emergency information with phone numbers of camp and local hospitals
   d. Vehicle Accident Report Form

EMERGENCY PROCEDURES

1. In case of an accident, drivers should check status of passengers. If there are injuries, appropriately trained staff, drivers, or accompanying trip leaders should treat according to standard protocols including First Aid Training or WFR guidelines. As injuries are being treated, staff should create a response plan with the following considerations in mind:
   a. passengers situated in areas with reduced risk
   b. exchange of insurance information with other drivers
   c. writing down of names, addresses, telephone numbers, state and license numbers of persons/vehicles involved and of witnesses

d. not admitting fault or discussing accident with anyone except police or camp administration

e. waiting until police arrive to assess accident

f. notifying camp directors of accident

g. completing Accident Report Form in Information Packet

2. In cases requiring transportation by advanced medical professionals one staff member should accompany an injured camper if possible. Considerations as to this policy might include needs of remaining campers, needs of remaining staff, or direction by EMS personnel.

AFFIDAVIT OF CONDUCT

I, _____, hereby attest to meeting the requirements of employment, that I have not been found guilty of, regardless of adjudication, nor have entered a plea of nolo contendere or guilty to, any felony or misdemeanor. I further attest that I have not been judicially determined to have committed abuse against a child and do not have substantiated, indicated report of abuse, and have not committed an act which constitutes domestic violence.

I declare that I have read the foregoing statement thoroughly and that the facts alleged are true to the best of my knowledge and belief.

_____ _____

affiant date

I cannot attest the above statement because of the following circumstances:

Release of Driver Information

Camp High Rocks and Morrow Insurance have permission to request a copy of my driving abstract from the state for the purpose of driving camp vehicles.

Signed by:_____ (driver)

Date: _____

Name (please print): _____

Date of Birth:_____

Driver's License State and Number: _____

INFORMATION FOR DRIVERS

A. Policies in effect for drivers and riders

1. Camp vehicles are to be driven given prior authorization only. Drivers should be sure to carry their licenses when off camp property.

2. Safety and behavior policies:

   a. Campers and staff need to observe basic safety principles when riding in a vehicle: remaining seated with seat belts fastened while vehicle is in motion; no horseplay; no part of the body outside of the vehicle.

   b. Campers and staff need to respect other individuals both inside and out of the vehicle: no shouting or demonstrations; being aware of the driver's need to concentrate.

   c. Campers should never sit or stand on a vehicle; in particular, when loading canoes, campers should refrain from climbing on top of the van or the trailer.

   d. Camper passengers are not allowed in or on the back of the pickup truck or any other vehicle without seats, or in work vehicles such as the jeep or tractor.

3. Drivers are requested to check their vehicle after return to camp to remove lost and found items and to clean the interior if needed. Be sure all windows are left closed.

4. Report to the directors any mechanical problems with vehicles as soon as you discover such problems.

B. Vehicle checklist

If possible do the following items before each trip:

1. Check levels of:

   a. gas

   b. oil

   c. water/coolant (if removal of radiator cap required, check only when engine is cool)

   d. tire pressure (a visual inspection is sufficient unless pressure seems abnormal)

2. Check for the presence of the vehicle's:

   a. first aid kit

   b. fire extinguisher

   c. emergency information package

3. Periodically check (which may be done by normal use) the following items:

   a. lights

   b. windshield wipers

   c. emergency flashers

   d. horn

AIR

see Emergency Action Plan & Evacuation Procedures/Report form

CHAPTER V

Technical Skills--Land

HIKING

University of New Hampshire

Outdoor Education
Summer Backpacking Skills Policies

INTRODUCTION

The primary purpose of this course is to provide students with a solid understanding of summer backpacking skills. It is taught using a combination of classroom lectures and practical application situations (e.g., trips), providing students with the skills necessary to conduct a safe and efficient wilderness hiking experience. The course is a two credit graded class made up of classroom and outside experiences designed to increase skill development and level. The course also consists of two weekend-long hiking trips.

The Kinesiology Department offers two sections of Summer Backpacking each fall. The maximum enrollment of each class is limited to 13 students. Teaching staff for each class generally consists of one paid instructor and teaching assistants. It is recommended that each section have at least one teaching assistant to help teach and coordinate.

TRAINING OBJECTIVES

Upon completion of the course, students are able to correctly:

1. identify proper clothing and footwear needed during a hiking experience
2. identify appropriate equipment necessary for a safe hiking experience and explain the differences between gear (e.g., internal vs. external packs)
3. understand, explain, and demonstrate low-impact hiking and camping techniques
4. explain proper food and water requirements, how to effectively plan individual and group meals, as well as determine quantities necessary
5. successfully plan and implement an appropriate hiking route using a topographical map and general knowledge gained from the course

Instructors possess the necessary hiking skills and knowledge as outlined above. They must also have at least two years' experience in the activity. Instructors must also have experience in curriculum-planning, management of large groups, and risk management.

Instructors keep up-to-date with new technological advances and procedures for hiking. Teaching assistants should have successfully completed UNH's Summer Backpacking class or a similar experience (e.g., NOLS course) before being eligible to assist. They also have leadership qualities and the ability to instruct others properly (e.g., group management skills). Staff demonstrate these qualities through curriculum planning as well as teaching methodology (e.g., experiential activities and demonstrations).

Staff are familiar with local, state, and federal statutes regarding land use. For example, a local permit is required for use in the White Mountain National Forest when groups exceed the designated number allowed. They are familiar with any motor vehicle laws in areas used by the program (e.g., parking permits, tolls for private road use). These sites include but are not limited to:

The Presidentials in the White Mountain National Forest
Pawtuckaway State Park
Mahoosuc Mountain Range in Maine

Hiking programs can negatively impact the environments where they are conducted. Staff realize this potential and attempt to minimize it by teaching low impact hiking techniques (e.g., travel only on designated trails, the use of cooking stoves instead of open fires, natural clothing and equipment). Trips are planned to minimize the impact of the areas in which hiking is conducted through pre-trip discussions and on route techniques (e.g., the use of tent platforms or shelters instead of natural campsite).

Skills from other activities may be combined with hiking. Examples may include map and orienteering, river-crossing, and mountaineering. These skills may be found in other sections as needed. Refer to separate sections for specific policies and procedures for individual activities.

ENVIRONMENTAL UNDERSTANDING

Staff are familiar with the terrain selected for hiking. Examples of familiarity may include previous experience with the area or knowledge gained from general information sources (e.g., guide books, maps). Instructors are aware that weather conditions (e.g., snow and rain) and natural phenomena can vary the terrain at the areas to be used. Staff are aware of the obstacles and dangerous features that students may encounter (e.g., cliffs, ravines, rivers) through personal experience specific to the area or general information about the site.

The level of difficulty of the hike often depends on the group's skill level. Instructors will not send students to areas deemed by staff as "difficult" unless necessary skills are developed. Generally, the initial hike is "easy/moderate," this label defined by the instructors. The second trip generally progresses to "moderate/difficult," as deemed by staff. Instructors are aware of the dangers students may encounter during a hiking experience (e.g., ravines, streams, cliffs). Staff select the terrain accordingly, dependent on factors including the skill level and size of the group, weather conditions, seasonal variations, etc.

HUMAN UNDERSTANDING

Staff and students identify the goals within the group through classroom discussion prior to conducting the experience. Activities are adjusted and adapted to meet these goals (e.g., length and difficulty of trips). Various teaching methodologies are employed to achieve this, including classroom discussions/lectures, group presentations, and experiential learning (e.g., hands-on activities such as stove use).

Each student completes a medical history and liability waiver prior to participating in the hiking experience. These forms are filed and kept on record by the Department of Kinesiology. Prior to conducting the experience, staff examine each individual medical waiver. The information obtained from these forms helps staff recognize any health concerns prior to the trip. Students are informed of the inherent risks of the activity (e.g., weather, injury).

CONDUCTING THE ACTIVITY

The program has a written Policies and Procedures Manual for the conduct of this activity. See Risk Management section of the Manual for reference.

Before students participate in the activity, they are provided with adequate instruction in areas including but not limited to:

1. clothing
2. equipment
3. food
4. conduct on the route
5. injury prevention
6. navigation

Staff provide adequate supervision of students. Generally, staff are within visual contact of the students during the hiking experience. However, during certain situations, including bathroom needs, solos, and sleeping, staff may not be supervising visually. During these times, students may inform instructors or other students of their whereabouts. Instructors and teaching assistants monitor the group's ability and adjust the activity accordingly (e.g., fatigue or injury).

The strenuous nature of the activity is appropriately adjusted for all group members and consistent with the program goals. "Slow as the slowest person" is appropriate if the group has agreed that travel together is the activity goal. There are times when a person is physically, mentally, or emotionally unable to complete an activity (extreme fatigue or injury) and should no longer participate. If the group decides to split, one staff member is present in each group.

The course is outlined in such a way that class topics are a progression of classroom learning to the final trip experience. The course is taught in a step-by-step manner to provide necessary knowledge and to ensure proper instruction prior to the trips. This teaching methodology may include classroom discussions/lectures (e.g., individual or group presentations) and hands-on activities (e.g., tent setup).

Prior to the start of each day's activities and the trips, staff and students will complete a variety of stretches plus a short (5 to 10 minute) walk to ensure a proper warm-up.

Instructors and teaching assistants use proper judgments regarding inappropriate or diminished conditions (e.g., extreme weather conditions). Students do not participate in the activity if deemed inappropriate by staff (e.g., potential avalanche terrain).

The ratio of staff to students is adequate and appropriate to provide proper instruction and supervision. This ratio is determined by the Department of Kinesiology and generally is limited to 13 students per 2 staff members, due to transportation needs. This ratio may be smaller if more than one teaching assistant is used or if the number of participants is fewer than the maximum.

Instructors brief students prior to the activity. This may include specific site or area to be used, exact route to be followed, emergency procedures and any relevant objectives. Following the activity, instructors debrief the activity. Examples may include evaluating what went well during the activity as well as areas in need of improvement.

Students' abilities are assessed throughout the course by the instructor and teaching assistant(s). Examples may include preparedness for activities and/or trips (e.g., packing appropriate equipment). In addition, students may be asked to complete surprise quizzes, journals, or papers. A final examination is also given. At the end of the semester, instructors and teaching assistants are assessed by the students in writing through written evaluations. In addition, verbal feedback may take place through staff-student discussions.

EMERGENCY PROCEDURES

Adequate first aid and rescue equipment (e.g., rope, cellular phone) is available to staff, and they know how to improvise in the event of an emergency (e.g., improvised litter). Staff generally are certified Emergency Medical Technicians with wilderness EMT training.

The program has established boundaries for the hiking experience. These may include specific trails or routes to be followed, certain rendezvous sites, or tent platforms/shelters. Staff provide students with relevant meeting times and places if the group has decided not to travel together. Staff instruct students on what to do in emergency situations (e.g., hypo-wrap for hypothermia, improvisation for injury management).

Staff possess a first aid kit that is available and accessible at all times during the activity. In addition, emergency rescue equipment, including a cellular phone, rope, shelter, and food are provided by staff for hiking trips.

See Risk Management/Emergency Procedures section in Manual for proper emergency procedures specific to hiking. Examples may include injury, adverse weather conditions, or natural phenomena.

Staff instruct students on what to do if in emergency situations, including injury, becoming lost or separated, and unexpected weather conditions. Refer to Risk Management/Emergency Procedures section in manual for proper emergency procedures.

CLOTHING AND EQUIPMENT

Staff instruct students on proper dress techniques for a hiking experience. These include sturdy hiking boots, non-cotton clothing consisting of an inner skin layer, a middle insulating layer, and an outer waterproof shell layer. If students do not have clothing/equipment that is deemed adequate by staff, it may be provided by the instructors. All students will be provided with maps of the specific site used. Depending on the length of the hike, the terrain to be encountered, as well as potential weather conditions, clothing and equipment may vary (e.g., day hike to Mt. Chocorua vs. a two-night trip to Mt. Washington).

Staff and students complete a thorough inspection of each piece of equipment prior to and following each activity. Inspections are completed using visual and hands-on examinations of the gear. Participants properly store and care for tents, packs, stoves, sleeping bags, and other necessary equipment with the assistance of the equipment manager.

Staff and students complete a thorough inspection of equipment and associated protective gear prior to use. In addition, gear is inspected for potential damage after completion of each activity. Each piece of equipment/gear (e.g., packs, tents, stoves) is inspected by the UNH Kinesiology Department equipment manager. Inspections include a visual and hands-on examination of the gear.

The Department of Kinesiology's equipment manager records all purchase and maintenance records/inspections of each piece of hiking gear through the use of a purchase/maintenance log.

The use and condition of each piece of hiking equipment is kept by the equipment manager in a usage log. To ensure the safety of the specific gear to be used in the activity, a conditions log is also kept by the department. This is done through records of use as well as visual and hands-on inspection of all gear/equipment.

Instructors teach the use of equipment to be used in the activity. Staff sequence the information in a manner that is appropriate and consistent with the course outline mentioned above. Generally, this includes a combination of teaching methodologies, including classroom lectures or discussions, individual or group presentations, and hand-on demonstrations or activities (e.g., stove use).

NOURISHMENT

Staff instruct students on proper nourishment and water needs while hiking. Generally, two quarts of water are sufficient per day, although factors such as physical exertion can increase the body's need for water. A high carbohydrate diet is recommended, but it is the responsibility of individual students to provide for their own nutritional needs while participating in the activity. Prior to the experience, staff and students plan a menu, through classroom discussions, to meet these needs.

INITIATIVE GAMES AND PROBLEM SOLVING EXERCISES & HIGH AND LOW ROPES/CHALLENGE COURSES

The Browne Center
Universal Challenge Course
University of New Hampshire

Policies and Procedures Manual

PURPOSE OF MANUAL

The following standard operating procedures are meant to serve as a guide for the Browne Center Universal Challenge Course (UCC) facilitators. They are not meant to take the place of good judgment and proper training. Since no policy manual can cover all situations that may arise, all facilitators are expected to hold the physical and psychological safety of their clients and themselves as their highest priority when working on the UCC. It is expected that facilitators will follow the information and practices set forth by the Browne Center as well as the current standards of practice within the field. When in doubt, err on the side of safety.

This manual is updated periodically. We would appreciate any feedback you may have. If for any reason you are not comfortable with a person's participation in an activity, it is your responsibility to prohibit her/his engagement in it. There often are no clearly established guidelines for people with certain medical conditions who participate in adventure activities. Therefore, use your best judgment, know the latest developments in the field in these areas, and work toward educating consumers so they can make appropriate decisions regarding whether they should participate.

SAFETY SYSTEMS

In general, two safety systems are in place for the Browne Center's Universal Challenge Course. The primary safety system used for initiatives and low elements is spotting. The primary safety system for high elements is belaying. The procedures for each of these systems are explained in this manual. One of these two safety systems is in place at all times, though each individual activity or element may have specific requirements. Specific activity safety guidelines are explained in the following sections.

SPECIFIC SAFETY GUIDELINES

The following section of the manual is divided into four areas:

a. Introductory Activities

b. New Games

c. Low Elements and Initiatives

d. High Elements

Each of these areas is discussed, focusing upon the mechanical safety concerns of specific elements and initiatives. It is not the purpose of this discussion to outline all possible explanations or introductions. This is beyond the scope of this manual.

The term "element" is used in reference to the specific events that make up the UCC. Each element represents a unique problem for the participant(s) to solve on an individual or group basis. The height of each element varies from ground level to 40 feet or more above the ground. Consequently, different safety guidelines have been established to address concerns unique to "high" and "low" elements.

INTRODUCTORY ACTIVITIES

A common practice in adventure programming is to begin with introductory activities. These activities, also called warm-ups or ice-breakers, serve two purposes:

1. To ready the group physiologically by warming up the body. Stretching exercises and cardiovascular warm-up reduce the possibility of muscle strains or pulls.
2. To ready the group psychologically by breaking down social barriers and creating a comfortable group environment. Introductory activities can set the scene for the group, allow members to get acquainted with each other and the facilitators, relax inhibitions and anxieties, begin the expression of trust between group members, and introduce spotting skills.

Facilitators may choose to use the introductory period to discuss expectations, set group goals, and/or provide a framework for the program. The introductory period may also enable the group to define its purpose and set group norms, thereby setting a foundation before advancing to more challenging activities.

NEW GAMES

A variety of activities exist under the general category of New Games. These activities are often included in the introductory period. In general, New Games are low-level introductory activities having common-sense safety concerns. It is expected that facilitators have the knowledge and expertise to understand the specific safety concerns for individual activities in their program. Each individual facilitator should feel s/he has the ability to design a specific program to meet the needs of her/his clients and should feel comfortable attempting new activities.

Possible concerns for facilitators to consider:

a. physical contact concerns, from running, jumping, rolling, etc.

b. environmental issues, as in surface type and condition, weather, ice, mud, etc.

c. specific activity constraints. For instance in two person tag indicating no running and keeping hands by the side when spinning around.

d. type of client and specific needs or constraints (e.g., touching, body space, language, medical issues).

e. readiness of the group.

LOW ELEMENTS AND INITIATIVES

Each specific element will be discussed using the following outline:

1. Name of element
2. Description
3. Objective
4. Typical frame
5. Safety procedures:
   a. **Required**—These specific rules should be presented and upheld during facilitation of the activity.
   b. **Recommended**—These ideas could be incorporated into the facilitation of the activity. However, this is left up to the facilitator's discretion. If these recommendations are not adhered to, it is assumed that the facilitator has a reasonable and prudent rationale for not doing so.
   c. **Suggested**—These are other thoughts regarding the element or initiative that a facilitator may want to incorporate into her/his presentation in order to enhance the experience.

Introduction to Spotting for Low Elements and Initiatives

During low elements and initiatives where participants are relatively close to or on the ground, the safety system is spotting.

> *Spotting is the human safety net provided by other people for the person(s) doing an activity. It is the primary safety system for initiative problems and low elements. It is also used in limited ways for certain high elements. Basic spotting techniques are taught to participants through introductory activities and then modified or added to as the demands of specific elements require.*
>
> *Falling off things is to be expected. Proper, alert spotting helps prevent falls from causing injury. Regardless of the specific spotting technique being used (techniques do vary for different events and elements), the primary principle is to protect the participant's head and upper body through physical support.*
>
> *The term "catching" is often used in both the teaching and doing of spotting. But while spotters usually need to be in position to catch a participant in the event of a fall, it is very difficult to literally catch a falling body, even from just a small height. Spotters and participants must understand that catching means to support and protect the upper body and head in case of a fall (sometimes referred to as breaking the fall). An understanding of this concept of catching, along with a grasp of the real meaning and function of spotting, can prevent breaking the initially fragile feelings of trust. Participants should understand that a spotter who breaks their fall, even though either or both participant and spotter end up on the ground, has indeed performed her/his role responsibly and in a trustworthy manner....Teaching spotting is one of the most important tasks in any ropes course experience. Careful instruction is required because potential spotters oftentimes do not recognize their importance until actually called upon to protect someone (p. 7–8).*
>
> Webster, S. *(1989) Ropes course safety manual: An instructor's guide to initiatives, and low and high elements.* Dubuque, IA: Kendall/Hunt.

Spotting Guidelines and Procedures

It is necessary to teach and test spotting techniques to all group participants and to review these exercises each time a group returns to the course. Spotting guidelines:

a. The first priority in spotting is to protect head, neck, and spinal cord. For this reason, it is important to make sure the head is never below the feet.

b. Maintain an appropriate position for the activity. Be ready to move at any time.

c. Anticipate the possibility of a fall.

d. Stay close to the participant, but do not interfere with his/her movements unless assistance is needed.

e. Spotters need to stay focused on the individual they are spotting.

f. Be familiar with the events you are facilitating in respect to potential accidents.

g. Keep fingers and hands in the appropriate positions.

h. Use specific communication between spotters and participants to begin and end an activity.

A series of explanations, discussions, demonstrations, and exercises are used to teach and test spotting. Spotting activities are generally done in a sequential fashion where one step is mastered before proceeding to a second step. Participants must show competency and responsibility in spotting techniques prior to low element participation.

Sample Teaching Sequence for Spotting

1. Ensure that each participant understands the difference between catching and spotting and that supporting the fall of the head, neck, and spinal cord area is the focus.
2. Demonstrate and explain proper spotting position and techniques, and have group practice positions and techniques.
    a. Feet shoulder-width apart, one foot slightly in back of the other. Proactive stance, ready to support.
    b. Knee and elbows slightly bent to absorb the shock, body leaning slightly forward.
    c. Head back to avoid flailing arms and hands.
    d. Fingers together and slanted slightly back, using palms to catch or support. Awareness of not poking/jamming into eyes, nose, mouth, etc.
    e. Hands constantly ready to go into spotting position (up and out).
    f. Mentally alert and concentrating on person to be spotted.
3. Demonstrate and explain spotting communication. This verbal exchange ensures readiness from the participant and the spotter. While the actual words vary depending upon the activity and the clientele, the check-and-response system remains consistent. A typical sequence is as follows:

Participant	"Spotters ready?"	Check
Spotters	"We're ready"	Confirmation
Participant	"Falling"	Double Check
Spotters	"Fall!"	Confirmation

A useful analogy to use when explaining this system is one of making a "contract" between participant and spotters. When a participant asks "Spotters ready?", he/she is asking the spotters to enter a short term contract based upon physical safety and trust. When spotters return with "We're ready," they are indicating their willingness to establish this contract with the participant. When the participant double checks the system prior to actually engaging in the activity ("falling"), they are asking the

spotters to "sign their name on the dotted line." When the spotters confirm the second check ("fall"), they are effectively "signing their names" and binding themselves for the duration of the contract, which in this case is the time required to finish the activity.

When finished in an activity, participants inform spotters they are safe and no longer need support. The spotter responds, ending the contract and the spotters' obligation to the participants for that specific activity. It is important to have this check-and-response system in place to reduce confusion and potential injury due to false assumptions related to safety.

Do not stop active spotting until each participant is safely back on the ground and says "I am safe."

Guidelines for Specific Low Elements and Initiatives

Spotting guidelines outlined above should be used for all low elements and initiatives.

Element: Spider's Web

Description: The Spider's Web is a prefabricated web strung between two trees, poles, or free-standing objects. The upright poles or trees are approximately 10 feet apart, but this distance can be adjusted depending upon conditions and group size. Webs may be constructed from a variety of materials (e.g., heavy kite string, bungee cord, and even masking tape). Webs may be portable or semi-permanent, depending upon needs and conditions. The web is usually constructed to have as many holes as number of participants, the average being 10 to 15 openings of various size and shape. The top border of the web should not be higher than what a group of people could safely lift a person to be passed through a hole, usually about 6 feet above the ground.

Objective: To get the group from one side of the web to the other without touching any of the lines and staying within the pre-defined boundaries of the task.

Typical frame: Your group has the task of getting from one side of the web to the other. If you touch the lines at any time, there will be consequences for your actions. Once a hole has been successfully negotiated by a member of your group, you may not use that hole again, unless that member returns to start over (due to a prescribed consequence), which will result in the hole re-opening. You may not go over the top line, and you may not go under the bottom line. The two trees on either side are your right and left boundaries. Remember quality is defined as not touching the lines.

Sample consequences of touching the web:

- That person must go back and start over.
- That person plus 1/2 of the group already through must go back.
- Everybody start over.

Spider's Web Safety Procedures

A. Required

1. Present problem and explain spotting procedures.
2. No running or diving.
3. Participants may not go over the top of the web.
4. Veto all unsafe ideas.

B. **Recommended**

1. Pay close attention to the beginning of the problem, when less people are over, especially if the group attempts to lift right away.
2. If participants are crawling through the web in "wheelbarrow" fashion, instruct participants to let go of one leg at a time to prevent the crawler from landing on his/her knees.
3. Talk to group about lifting safety. Stress the importance of continuing to spot until participant is firmly on his/her feet.

C. **Suggested**

1. If there are large people in the group, allow the group to contract up front for the maximum number of touches they are contracting for, or allow a specified number of people to touch on their way through.
2. If time is a factor, allow the group to contract up front how many people they can get through the hole in the time allotted.
3. The bird loft is an effective lead up activity.

Element: Porthole/Rebirth

Description: A large tire is suspended between two trees with four wire cables. The tire is approximately 4 to 6 feet above the ground at the highest point. A hole must be drilled in the bottom of the tire to prevent water from collecting.

Objective: For the group to get from one side of the porthole to the other without touching the suspension wires. Once through the tire a participant cannot return to aid another team member but may serve as a spotter.

Typical frame: Your task is to get your group from one side of the porthole to the other side without touching the wires. You may touch any part of the tire in order to complete this problem. Once you have passed a team member through the porthole that person may only give aid from that side of the hole. They may not return to help lift. A variety of techniques are possible. Your task is to find the one that works for your group.

Safety Procedures

A. **Required**

1. Present problems and explain spotting procedures.
2. Do not allow diving.
3. Do not allow participants to climb over the tire.
4. Do not allow participants to place a foot inside the rim of the tire.

B. **Recommended**

1. Keep fingers out of rapid links.
2. Do not step on wires.

Initiative: All Aboard

Description: A wooden platform of varying size. The smaller the platform, the more challenging the task. Typical size of platform is 3 feet by 3 feet.

Objective: Group must find a method by which everyone can get on the platform with all body parts off the ground for a predetermined period of time. Time frame can vary depending upon needs and abilities of group, but normally is 8 to 12 seconds.

Typical frame: This activity represents a goal your group must work on together. This activity requires contact to resolve the problem and be successful. Problems have different characteristics, this one having the attribute of physical dependency. It is impossible to achieve success without being dependent on another person in the group. In a manner of speaking, this activity represents the coming together of combined individual efforts in a group project; possibly the culminating effort of many months of subcommittee or subgroup work. In the end, every group member will hopefully see the dependency relationship that exists between each of you.

Safety Procedures

A. **Required**

1. Present problem, and explain spotting procedures.
2. Do not allow standing on shoulders.
3. Be sure the platform is placed on level ground.

B. **Recommended**

1. Do not allow sitting on shoulders or "piggybacking."
2. Explain that, if a participant loses her/his balance, he/she should let go and step down rather than pull the group down.

Initiative: Maze

Description: The maze is typically constructed in a wooded area. The activity consists of a series of lines of varying diameter strung between trees at waist level. The exit point consists of a "dead end." Many turns and corners are included to increase participant challenge.

Objective: To find your way out of the maze blindfolded and without speaking. In addition, by individual choice, to return into the maze and aid other members of the group.

Typical frame: This activity requires that members of the group be blindfolded for approximately 15 to 20 minutes. This is a difficult thing to do, and a common response is to take the blindfold off or to peek. We encourage you to resist this temptation. During this activity, you will be asked to find your way out of the maze. Each of you has a piece of rope in your hand. These ropes are of different sizes and are the construction materials of the maze. You must not let go of the rope until you have grasped another. You must maintain contact with a rope at all times. You cannot go over or under a rope. If you do, the facilitator will remind you of the rules of the activity. At no time during this activity can you speak. Once you reach the exit, the facilitator will ask you to make a choice: Either take off the blindfold and wait quietly for the group to finish; or leave the blindfold on and go back into

the maze to help others find their way out. Remember, you must leave the blindfold on to go back into the maze. The problem is over when the last person gets out of the maze.

Safety Procedures

A. Required

1. Present problem, and explain spotting procedures.
2. Instruct participants that they need to keep a hand in front of them in order to feel for people or trees.
3. Inform participants of the danger of moving around in a small space with other people. They should move slowly and carefully.
4. Be prepared to spot participants carefully. The uneven terrain, trees, roots, and rocks could cause injury.

B. Suggested

1. Remember that participants may feel particularly vulnerable during this activity, and facilitate accordingly.
2. Check area for eye-level branches or newly fallen debris.
3. Inform participants that they can be blindfolded away from the maze and guided individually into the maze by the facilitator. They cannot begin moving until all participants are in the maze.

Element: Mohawk Walk

Description: A series of cables strung tightly between trees, approximately 2 feet above the ground. The distance between trees or the span of the cable is varied to increase challenge and make each span a different task. Each separate span should have tools available to the group ranging from the use of arms (shorter spans) to ropes and multi-vines (longer spans). Spans can range in size from 7 to 20 feet.

Objective: For the whole group to traverse the length of the linked cables without falling off and touching the ground.

Typical frame: Your group's task is to traverse the length of the Mohawk Walk in the allotted time. At no time can you touch the ground. You can use only items you have on your person. If you fall off or use a spotter for support, you must return to the beginning and start over. Imagine this is a tightrope walk and that the ground is far below you. Each individual on the wire must have a spotter on each side for safety. Once you reach a tree and are stable, you may get off to spot and then return to your position at the tree with no penalty.

Safety Procedures

A. Required

1. Present problem and explain spotting procedures.
2. Spotters must stand between the climber and the tree to which the rope is connected when a rope is being used in a tension traverse (climbers tend to hold onto the rope which causes them to swing toward the tree where the rope is attached).

3. Any climber not holding onto a tree must be spotted by a minimum of two spotters (one on each side of the wire).
4. Do not allow lunging for the tree or running on the wire.

B. Recommended

1. Warn participants of potential shoulder injuries when holding the rope for balance.
2. Demonstrate how to spot someone who has lost her/his balance and is now swinging on the rope.

C. Suggested

1. All available participants should spot climbers.
2. Inform students that climber who has reached a tree may step down at that point to spot other climbers.

Element: Triangle Tension Traverse

Description: A series of three cables strung between three trees forming an equilateral triangle. The cables are approximately 2 feet off the ground. Two ropes that are long enough to reach the far end of the triangle are secured to the middle tree. The height of the attachment is approximately 8 feet. The rope is used for support while a participant attempts to traverse the activity.

Objective: For the group to split into two equal halves situated at different cables and begin traversing around the triangle, eventually passing the other half of the group on the way. At no time can a participant touch the ground.

Typical frame: Your objective is to traverse the wires and travel around the triangle. One half of your group will start at one end, and the other at the opposite cable. At no time can you touch the ground. If this happens, you must start over at the beginning. Two spotters for each person on the wire is required. Once you reach a tree you may step off and act as a spotter without penalty.

Safety Procedure

A. Required

1. Present problem, and explain spotting procedures.
2. Spotters must stand between the tree and the climber (climbers tend to hold onto the rope which causes them to swing toward the tree where the rope is attached) when a rope is being used in a tension traverse.
3. Warn participants to beware of potential shoulder injuries for those who are susceptible.
4. Do not lunge or run on the wire.

B. Suggested

1. All available participants should join in to spot climbers.
2. Inform students that climber who has reached a tree may then step down to spot other climbers.

Element: Nitro Crossing

Description: A rope is suspended from a cable strung between two trees. The rope normally has a spliced loop at the end and hangs in the middle of a rectangular area approximately 10 feet wide by 15 feet long. The rectangular area is marked by a boundary at each of the long ends. The area in the middle is considered out-of-bounds.

Objective: To get the group across the out-of-bounds area to a predetermined landing area without touching the ground.

Typical frame: Your task is to get from this "log" to the platform without touching the ground. The area in between is out-of-bounds. If you touch the ground, you must start over. You may use only materials you have on your person or those provided in the activity to complete this task. Once you reach the landing area you must remain there until the entire group has arrived. You must manage to fit everyone onto the landing area for a period of 5 seconds (see "All Aboard" element description). If anyone falls off, everyone must return to start over.

Safety Procedures

A. **Required**

1. Present problem and explain spotting procedures.
2. Warn participants that the rope stretches and that the "swinger" may touch the ground at the apex of the pendulum.
3. Remind the group that if an individual feels herself/himself falling from the landing platform, that he/she should step off and let go of the group.

B. **Recommended**

1. Do not allow sitting or standing on shoulders.
2. Do not allow throwing rocks or sticks to obtain the rope.
3. Instructor should spot the landing platform initially.
4. Warn the group that the platform is not secured in its spot and may move.
5. Warn the group that the platform surface may be slippery.

C. **Suggested**

1. Suggest to participants that they put a foot in the loop of the rope if they are concerned about upper body strength. Alert participants that, as with any element in which one's weight is supported by a rope, the potential for shoulder injury exists.

Element: Universal Nitro Crossing

Description: A cable is strung between two trees. Attached to the cable is a square wooden trolley (approximately 2 feet x 2 feet) hanging from four multi-line ropes. The trolley rides on the cable a distance of 20 feet between two boundary lines. The area between the lines is considered out-of-bounds.

Objective: To get the group across the out-of-bounds area to a predetermined landing area without touching the ground. Variation: Landing on an All Aboard platform.

Typical frame: You are a group of anthropologists and scientists attempting to reach the forgotten civilization of Zazbar. The Zazbarians live on a tiny and remote island in the middle of an endless sea of toxic slime. You have worked your entire lives to reach this destination and are not about to let a little toxic slime get in your way. Your only way across to the tiny island without getting slimed is a small trolley that is out of your reach. Once you arrive on the island, you must stay there until your entire group has successfully crossed.

Safety Procedures

A. **Required**

1. Warn participants that the ropes stretch when trolley is weighted. Riders must keep their feet up to avoid hitting the ground and rocks.
2. Do not allow more than two people on the trolley at a time.
3. Do not allow standing on the trolley or climbing the ropes. Sitting and kneeling are acceptable.

B. **Recommended**

1. Do not permit rocks, sticks, or branches to be used to reach the trolley.
2. Spot the riders on the trolley.
3. Warn participants at either end to watch for an incoming trolley, to avoid being hit.
4. Do not permit sitting or standing on shoulders while on the landing platform.
5. Initially spot the platform.
6. Warn the group that the platform is not secured in its spot and may move.
7. Warn the group that the platform surface may be slippery.

Element: Swinging Tires

Description: A cable strung between two trees approximately 20 to 30 feet apart with tires suspended from the cable. The tires are high enough off the ground so that the tires will not touch with the weight of two people when the cable sags.

Objective: For the group to travel from a start area to an end area without touching the ground. The group may use the tires to traverse the area and avoid touching the ground.

Typical frame: As freshmen in high school, you have several important years of school ahead of you. Each year of your high school career is represented by the three tires and the rope. The ground underneath the tires represents all of the challenges you may face, such as keeping up with your homework, making wise decisions, or making new friends. In order to be successful in all of these areas, you must reach "graduation," the far boundary line, without touching the ground in between. In completing this task, you must not only get yourself across but also help your peers arrive successfully at their "graduation."

Safety Procedures

A. Required

1. Present problem, and explain spotting procedures.
2. Inform participants that a swinger may get off of a tire to spot and return with no penalty. Participants who have completed the task may also spot.
3. Do not allow more than two participants to be on the same tire at once.
4. Do not allow participants to place feet inside the rim of the tires.
5. Do not allow diving for the rope or tire.
6. Do not allow climbing the rope or climbing above the tires.
7. Do not put hands/fingers in the hardware.

B. Recommended

1. There should be a minimum of two spotters per "swinger."

Initiative: Trust Fall

Description: Typically, a platform or tree stump 3 to 5 feet off the ground is used. A picnic table works well. The participant climbs on top of the platform, turns her/his back to the group, holds her/his body rigid, and falls backward to be caught by the group.

Objective: To develop physical trust in the group. To fall backward into the waiting arms of the group. To demonstrate spotting and lifting techniques.

Typical Frame: This problem involves physical trust and a willingness to trust others. Your task is to create an environment where an individual in the group can feel comfortable enough to fall backward from this platform to be caught. This requires a great deal of commitment and trust. The physical safety net is constructed as follows:

1. Spotters form two lines facing each other with the platform next to the first two spotters.
2. Spotters interlace or "zipper" arms, alternating with palms up but not grasping each other's wrist. Finger tips should be at the elbows of the person across from each spotter.
3. One foot is forward and the other is back with knees flexed in order to create a body stance that can absorb the shock of the falling person.
4. There is no space between spotters. Spotters' shoulders are touching.
5. Heads are back to avoid being hit.
6. Spotters are ready.
7. Faller interlaces her/his arms and fingers across her/his chest to prevent flailing arms and elbows.

When the faller is ready to fall, s/he will ask spotters if they are ready to catch. Spotters acknowledge by saying "ready." The faller says "falling," and spotters respond with "fall away." Once caught, the faller's legs are lowered to the ground while supporting the upper body and head remain supported until the faller is standing and balanced on the ground.

Safety Procedures

A. **Required**

1. Present problem, and explain spotting procedures.
2. Gauge platform height according to group, making sure it doesn't exceed 5 feet (platform height).
3. Make sure the length of the spotting line equals or exceeds the height of the faller.
4. Warn participants that this is not a good activity for anyone with a history of back or neck injuries.

B. **Suggested**

1. Keep in mind that a trust lift (bird lift) may be more appropriate for those who should not sustain a fall.

Element: The Wall

Description: A wooden wall usually constructed from 2 inch by 6 inch planks supported by 4 inch x 4 inch beams against two trees or telephone poles. The height varies, but is usually 12 to 14 feet tall. A platform is constructed in the back to aid in safely lifting and climbing down from the back of the wall.

Objective: To get everyone up and over the wall while providing a safety mechanism to prevent injury in the event of a fall.

Typical frame: This wall represents a major transition for your company. You are facing a large turnover in management and changes to internal policies. This activity will provide you with an opportunity to physically practice how you will support, communicate with, and guide each other through the transition-period ahead. Your task is to safely and effectively get your entire group up and over the wall.

Safety Procedures

A. **Required**

1. Present problem, and explain spotting procedures.
2. Make sure no one's head is below her/his waist.
3. Make sure the feet of each lifter remain on the platform at all times. They should not be braced on the back guardrail.
4. Do not allow more than three people on the platform at a time.
5. Spot people descending the ladder.
6. Spot climber until her/his feet are on the platform.
7. Inform participants that he/she can spot others but cannot help with lift once s/he has gone over the wall.
8. Inform participants not to wedge fingers in the cracks of the wall or use the edges of the wall in an attempt to climb it.
9. Warn participants of potential back, neck, or shoulder injuries.
10. Stress the importance of spotting for a lateral fall. When participants are hoisted up from below, they are likely to slide sideways if they fall.

B. **Recommended**

1. Remember that helmets and harnesses should be worn by all participants.
2. Encourage participants to grab climber's harness and not clothing when hoisting over the wall.

C. **Suggested**

1. Make sure that participants come down in the order they went up.
2. Remember that the rope can be used once or not at all.

Element: Universal Teeter-Totter

Description: A 6 foot by 12 foot wooden platform balanced on a 4 inch by 4 inch beam and curved fulcrum that is supported and held in place by two blocks and platforms.

Objective: To get the group balanced on top of the teeter-totter with the platform touching the ground as few times as possible.

Typical frame: Your group has expressed a belief that people in your organization have difficulty balancing their individual needs and goals with the demands of their jobs. How do each of you generally approach this dichotomy? How is it handled by the organization as a whole? What effects does it have on interpersonal communication and job performance? This activity will help you focus on that challenge. Your task is to get your group on top of the teeter-totter while keeping it in balance.

Safety Procedures

A. **Required**

1. Present problem, and explain spotting procedures.
2. Warn participants on ground to stay back from the edge of the platform so that feet are not crushed if weight shifts.
3. Warn participants on the teeter-totter platform to stay away from the edge identified by the yellow line.

B. **Recommended**

1. Make sure participants climb on and off the teeter-totter from the middle of the long sides or by lowering one end of the platform to the ground and allowing everyone to walk off slowly.
2. Inform participants to step off to avoid pulling others down with them if they lose their balance.

Teeter-Totter Variations

- Time the activity.
- Have a limited number of attempts.
- Present tasks of increasing difficulty (e.g., keeping the Teeter-Totter balanced at all times, switching sides, sitting down and standing up).

HIGH ELEMENTS

Belaying

Belaying is a safety system using various specialized pieces of equipment (e.g., rope, carabiners, harnesses) to provide protection to a participant engaging in any activity that is off the ground and who cannot be safely spotted.

At the Browne Center UCC, belaying typically involves a team approach using a climber, belayer, and at least one safety backup. The belayer is ultimately responsible for the safety of the climber. When belaying, the belayer remains on the ground, taking up slack in the rope until the climber is ready to be lowered safely to the ground or falls off the element. At all times, the belayer is in a position to bring the climber to the ground in a controlled, gradual descent. Belays are used on all high elements. Participants should be trained to belay and be approved by a challenge course facilitator to belay other participants on the high elements. Only facilitators approved by the Browne Center are allowed to teach and supervise belayed activities.

The type of belay method described above is called dynamic belaying. Another type of belay system, static belay, is generally not used on the Browne Center UCC except in the following instances:

1. In course maintenance, setup, emergency protocols, and training by facilitators and staff.
2. In other situations as approved by the Director.

Climber Inspection and Preflight Checks

The climber and belayer are inspected before beginning an activity. Five areas of inspection are: harness, helmet, attaching the rope to the harness, commands, and belay technique.

1. *Harness Information*

   It is the responsibility of the facilitator to know the specifics of the harness being used. The Browne Center generally uses Misty Mountain Fudge harnesses (although there are other good harnesses available from companies like REI and Blue Water). Important safety points for the Fudge harness and most others:

   - The harness buckle must be "double backed." Pointing out a "C" for closed and an "O" for open is a good teaching technique.
   - The leg loops should have no more than two fingers worth of room. It is too loose if you can move the harness easily around your body.
   - The waist wraps need to be above the hip bones, around the waist, and all wraps must pass through the belay loop.
   - The Misty Mountain Fudge harnesses with the bright blue belay loops are extra large size.
   - Harnesses may get tangled and be turned inside out when taken off by previous participants. Be sure that the harness is right-side out and that the crotch strap passes correctly through the belay loop.

2. *Putting on the Helmet*

   Helmets are worn by all climbers, belayers, and anyone else in the climbing area. If the numbers of people on the course prohibit this, then the climbers have priority for helmets, followed by the belayers.

   - Helmet band should be adjusted to create a snug fit.
   - Helmet should cover the forehead and not be tipped back.

- Chin strap should be snug.
- Helmet should have very little movement when the participant shakes her/his head.

3. *Attaching the Rope to the Harness*

Proper attachment of the climbing rope to the harness is critical. The strength of the rope is meaningless if it is attached improperly. The Pamper Platform requires a different attachment procedure—see that later section.

- The facilitator will pre-tie a bowline on a bight (preferred because it is easier to untie after being loaded) or a figure eight on a bight in the rope. It is also possible, especially if participants will be rock climbing at a later date, to have participants tie directly into the rope with a figure-eight follow-through knot. All knots are backed up with a double overhand knot. Make sure that all the staff is familiar and comfortable with whatever method is being used and that it is consistent for all of the elements.
- When using a bowline on a bite or a figure eight on a bight, two locking carabiners are used to attach the loop(s) of the knot to the climber's harness. The carabiner gates need to be reversed and opposed to one another, making an "X" when the carabiner gate is depressed. The rope can be clipped directly to the belay loop on the Misty Mountain Fudge harness, but note that this may not be safe for other types of harnesses.
- Lock the carabiners by rotating the barrel until the gate is closed and back off a quarter turn. Both carabiners must be checked (with a "pinch test") to ensure they are locked prior to the climber leaving the ground.
- The belayer's end of the rope is attached to the belay loop of her/his harness with a belay device and one locking carabiner. The Browne Center generally uses a figure eight or ATC to belay, though a body belay or other approved belay device is acceptable.

4. *Climbing Commands*

As with spotting, it is important that all parties involved in a belay team are ready prior to the climber leaving the ground. The actual words used are not crucial, as long as there is a consistent method used by all participants.

For example:

Climber......"Ready to climb" .....Check
Belayer....."On belay".....Confirmation
Climber....."Climbing".....Double-Check
Belayer....."Climb away" .....Confirmation

When the climber returns to the ground safely s/he asks the belayer, "Belay off?" The belayer responds with, "Off belay," and the contract ends.

5. *Components of Belaying*

Five components of belaying will be described: a) technique, b) lowering, c) back-up belayer, d) ballast, and e) belay school.

A. Technique

As stated earlier, belaying is the technique of managing the rope so that the fall can be stopped and managed by the belayer if a climber falls. One person climbs at a time, while being belayed from below by another participant. The

belayer manipulates the rope in such a way so that a "brake" (or friction through a manufactured device) can be applied to stop the fall.

The functions of the belayer are:

- To take in rope to remove excess slack and prevent unsafe falls.
- To manipulate the rope to give the climber tension or slack as needed.
- To apply the brake to stop a fall.
- To conduct preflight safety check with the climber.
- To safely lower the climber to the ground.

The belayer must be able to perform all five functions while maintaining control of the rope at all times. The belayer's brake hand should never leave the rope. The following steps describe one way to take up excess rope and apply the brake in a standard belay. In this illustration, the belayer is using her/his right hand as the brake hand:

1. Grasp the working end of the rope in the left, or guide hand, and the standing end of the rope in the right hand, or brake hand (palm up). This is the starting position. With the guide hand extended and the brake hand next to the belay device, pull down with the guide hand and up with the brake hand (i.e., "slip").
2. Let go of the rope with the guide hand, grab the rope above the brake hand (i.e., "slap"), and slide the brake hand back down to the belay device (i.e., "slide").
3. Let go with the guide hand, and return it to the starting position.
4. Repeat process.
5. Apply the brake by bringing the brake hand down toward your hip. This locks off the rope and prevents it from moving through the belay device.

This technique can be described as "slip, slap, slide." Other belay techniques such as the two handed pinch method or "pull, slide, grab, together, back" are acceptable. It is the lead facilitator's choice as to which method is used; however, it is recommended that the method is consistent for all participants.

B. **Lowering**

When ready to be lowered, the climber should:

- let the belayer know he/she is ready to come down
- move at least 5 feet away from the end tree, turn her/his back to the belayer, spread her/his feet at least shoulder-width apart, keep her/his feet on the log or cable, and lean backward toward the belayer
- keep her/his feet on the log or cable until her/his head is below it, or else hold out her/his hands to prevent bumping.

C. **Backup Belayer**

Each participant belayer should have a backup belayer whose role is to assist the belayer by:

- applying the brake if the primary belayer becomes confused and neglects to brake in event of an unexpected fall
- aiding in the prevention of rope damage by keeping it off the ground or where it will not be stepped on

- keeping excess slack from tripping the belayer or getting hung up on obstructions
- aiding in safety checks before climber leaves the ground
- making sure the belayer has an appropriate amount of slack in the rope (sometimes called a "smile" of rope). There should be enough rope out so that the belayer has adequate play and is not restricted in her/his ability to belay correctly, but not so much that s/he is unable to serve as a backup system in case of belayer "operator" failure.

D. Ballast Person

The role of the ballast person is to grip one hand on the waist wraps of the belayer and one hand on the belayer's shoulder to prevent the belayer from being lifted off the ground. This component is more important to consider if the weight of the climber exceeds that of the belayer. The ballast person can also provide safety checks for the climber and belayer.

E. Belay School

Belay school is an instructional program preparing individuals to belay each other safely on the high-ropes course. Belay school is usually taught on the Incline Log, but other activity areas may be substituted when appropriate. For instance, belay school may be taught at a rock site if the group progression starts there instead of at the UCC. If this is done, then the differences with the UCC should be outlined before beginning challenge course elements. Facilitators should provide some form of demonstration of belay techniques with the first participant in order to give all participants a clear picture of the correct method.

Points to cover in belay school:

Equipment:

1. The rope is a dynamic kernmantle designed to stretch and "give" when a climber falls. Breaking strength equals approximately 6,000 lbs.
2. The climbing harness is specially designed for this type of activity and is rated to approximately 4,000 to 6,000 lbs. This is checked prior to any participant beginning a high element.
3. The locking carabiners are rated at approximately 4,000 to 6,000 lbs. When a climber leaves the ground, carabiners are in a locked position.
4. The helmet is worn for protection. Note that hardware on the cable is even stronger than the rope.

Skills:

1. Show how to clip in.
2. Explain the different responsibilities (e.g., back-up, ballast).
3. Show belay technique.
4. Explain climbing commands.
5. Demonstrate braking action.
6. Explain lowering off elements.
7. Allow teams to cycle through system.

Belay school may vary according to the needs of different client groups. Suggestions for running an effective belay school and high elements course are:

- Divide participants into groups of three (or four, if using a ballast person), with each group having a rope at the belay log (i.e., Incline Log).
- Allow each member of the group to take a turn practicing the role of the climber, belayer, backup belayer, and ballast.
- Watch participants carefully to see if they are using the proper technique and doing safety checks for each other.
- Face the belayer, observing her/his ability to belay correctly. No participant should begin climbing on the belay log until a facilitator is present and has determined that the belayer is belaying correctly.
- Do not allow any person deemed to be unsafe for whatever reason to belay or climb.
- Observe and monitor the safety of all participants once they are using the element(s).
- Inspect climbers and belay teams before beginning an element.
- The tops of the ladders are tied to the tree.
- Inform participants about the safety aspects of the UCC in order for them to understand the system and feel comfortable.

Safety Guidelines for Specific High Elements

The guidelines for most elements are similar to those used for the Incline Log. The exceptions, however, are described below.

Element: Pamper Pole

Safety Procedure

A. Required

1. Use both a seat and chest harness. The chest harness should not be holding any weight (hence, it should be slightly loose). Its purpose is to prevent the participant from flipping upside down. The chest harness should be located above the breast.
2. Tie climber in to both harnesses with a figure eight-follow through and double-overhand knot.
3. The belay system on this element is a just-rite-descender (drilled pole opposite the Pamper Pole). After the rope goes through all holes, at least two people need to have both hands on the rope to pull up slack as the climber ascends and to safely lower the climber to the ground.
4. Warn participants of potential shoulder and back strain if they grab on to the trapeze bar. If anyone is at all concerned that they may injure themselves or aggravate an old injury, s/he should be alerted to other options (e.g., touching the trapeze bar with one hand or jumping off of the platform).

Element: Zip Line

Safety Procedure

A. Required

1. The Zip Line braking system must be set up and a ladder carried to the end of the Zip Line.
2. Participants must be belayed from the ground to the Zip Line platform using standard belay procedure. A facilitator is on the platform when the participant arrives.
3. Once the pulley has been attached to the cable and to the participant, then and only then can the participant be taken off belay.
4. A facilitator, or responsible participant who has seen at least one demonstration and been instructed in Zip Line procedure, will be at the end of the Zip Line with a stepladder to help disconnect the "zippee" when he/she comes to a stop. The ladder needs to be placed under the "zippee" for her/him to stand on.
5. The "zippee" must disconnect the pulley from the cable and climb down the ladder. Those standing beneath the ladder should watch out for dropped hardware (e.g., pulley, carabiners). The ladder needs to be held securely while the zippee descends and then moved out of the way for the next "zippee."
6. Someone needs to take the pulley system back to the platform for the next person to use.

Element: High Trolley

Safety Procedure

A. Required

Participants must be made aware that the trolley has the potential to flip. When setting up optional hand lines, be aware of the participant's potential for entanglement.

ORIENTEERING

Pacific Crest Outward Bound School

Map and Compass

OUTCOMES

- Students will understand the components of the map, the parts of a compass, and how the map and compass can be used together to navigate and determine their location.
- Students can navigate safely during the course and potentially during independent travel.
- Students will have skills to use if they return to the wilderness.

CONSIDERATIONS

- Transference: Navigation serves as a metaphor for finding one's own way in life, taking responsibility, and giving service to a group. Contour lines are difficult for some students to understand and easy for others. It may have something to do with an ability to conceptualize. Care and respect must be taken to help students understand this most important feature of topographic maps. Keep in mind that this subject is best taught in progressive lessons so that students can build on the information that they already have. (See the broad lesson outline below.)
- Consider using visual tools to help make these conceptual topics easier for visual or kinesthetic learners to understand.
- Knuckle mountain—draw contours on your knuckles.
- Declination brain bucket—draw true and magnetic north on your helmet to help students really see it.
- Dirt (snow, sand) pile contours—use string to help students grasp contour lines.
- Orienteering course—make a course for students to practice following a bearing.
- Use the pictures here in this section while you are teaching.
- Bring a dry-erase board (as group gear) to use for lessons.
- See *Creative Curriculum Techniques in Games and Initiatives* for ideas on how to teach some map-and-compass skills.
- Consider developing map skills first, before starting compass work; maybe start compasses after your first re-supply.
- Consider using one of the compass methods that does not entail adding and subtracting declination. This allows more time and energy to be spent on navigating and less time learning how to account for declination.
- Consider which components of Outward Bound philosophy (commitment, craftsmanship, service, communication) might relate to this topic.

- Consider a discussion on communication after a tough day of navigating. How does it seem similar to or different from the students' home lives?
- Consider the importance of having more than one map-and-compass method at your disposal for the students, patrols, and co-instructors who will come with different learning styles and may need different ways of being taught.
- Keep it simple.

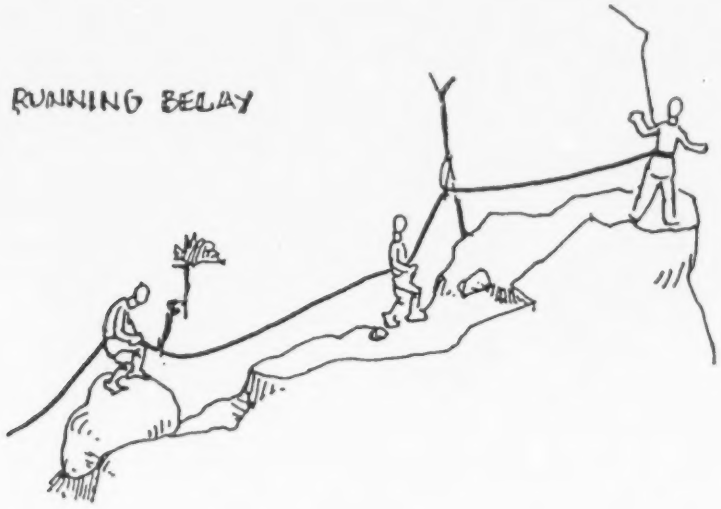

Figure 5-1

TEACHING OUTLINE

I. Types of maps: Maps are two-dimensional representations of the earth's three-dimensional surface and come in several varieties.

   A. Road maps are one kind of *planimetric* map, because they don't show relief.

   B. *Topographic* maps show *relief*, the ups and downs. Most maps that PCOBS uses are topographic and come from the United States Geological Survey (U.S.G.S.), the United States Forest Service (U.S.F.S.), or private vendors.

II. Components of maps

   A. The *numbers* around the outside of the map boundaries may include latitude and longitude measures (shown as degrees, minutes, and seconds), township and range numbers (shown with T for township and R for range), and grid north numbers.

   B. The *names of the adjoining maps* are often given in parentheses either at the location that they would appear (i.e., north, northwest, west, etc.) or in a small key.

   C. The *name of the map* for U.S.G.S. quadrangles normally appears at the top right and bottom right corners of the map. Other maps vary.

   D. The *scale* is the relation of one unit on the map to corresponding units on the ground. For instance one common size is 1:62,500; this equates one inch on the map to 1 mile on the land. (This is the size for maps in a 15-minute series: 15 minutes constitute one-quarter of a degree of longitude and latitude.) Another common size is 1:24,000 (7.5-minute series), which equates 2 inches on the map to 1 mile on land. Strings, grass, or fingers can be used to measure map distance and apply it to the scale.

E. The *contour interval* is the vertical distance represented between two different contour lines. Common distances for U.S. maps of the mountains are 40 to 80 feet.

F. The *magnetic declination* is listed as a number of degrees and a direction either east or west. See *Understanding Declination* below.

G. Maps also generally have a *date* of creation, date of data collection, or date of revision.

H. The *colors* are important. Many U.S.G.S. maps use green to show vegetation (originally this was to show where a platoon of men could hide within one acre), blue to show water, brown for contour lines, and black to show things made by humans including buildings, trails, roads, and boundaries. Maps vary.

I. Contour lines:

1. *Contour lines* are continuous lines of equal elevation. Each line shows one elevation, like a bathtub ring shows where the water level used to be.
2. A *peak* is shown by contour lines as a circle, either big or small. (See Figure 5-2 below.)
3. *Index contour lines* are generally every fifth contour line, are (usually) a darker shade of brown, and have their elevation labeled on them.
4. *Ridges* are positive features that stick out from a mountain. Contour lines describe ridges by going out to the ridge top and then bending back in towards a valley. Examined from the bird's-eye view of a map, the contour lines of *ridges form Vs that point down the slope.*
5. *Valleys* are shown by contour lines as a V or a U that points up the valley (i.e., to higher ground). Valleys are negative features that are carved into the mountain. Uphill and downhill can be established by finding the closest peak, the nearest two index lines, or a stream, which will always run in a valley.

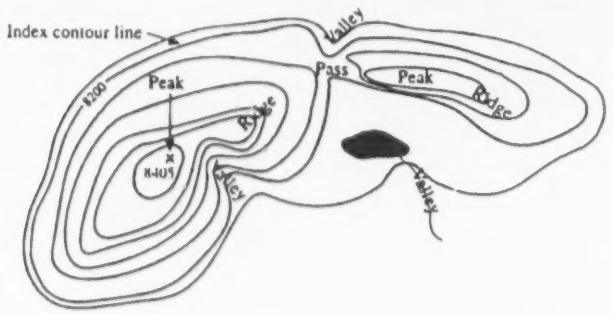

Figure 5-2

6. A *pass, saddle, col, or notch* is a low point between two high points; one can be seen where two ridges coming off peaks meet and their Vs point at each other. One can find two valleys when going downhill out of a pass; their uphill pointing Vs point in to the pass.
7. A *lake boundary* is a type of contour line, although the contour interval would have to hit the lake's edge right on to show as a brown line.
8. Coming out of the lake may be an *outlet stream*, and streams always flow in valleys. That is an excellent way to determine what is a valley.

9. Very rarely you may find a *depression*: or a hole in the ground. This feature looks like a peak on the map (a contour line circle); however, cartographers put small perpendicular marks along the inside of the contour line circle to indicate that it goes down, not up like a peak.
10. Contour lines may also indicate cliffs and flat areas. Cliffs are seen as extremely close contour lines, indicating that the vertical relief is great. Topographic maps indicate *flat area*s as widely spaced contour lines.

III. Orienting the map:

A. Orienting the map without a compass can help your students apply their new information to the land around them and connect them to the environment in which they're living. First, where's north?

B. You can have students gauge north-south by drawing a perpendicular line across a line drawn between where the sun rises and sets. Don't be fooled, the sun doesn't always rise exactly in the east. The time of year and latitude affect how far off the sun rises from east. At noon (standard time) and 1 p.m. (daylight savings time), the sun is approximately South. This is also affected by where you are within a time zone.

C. Using features on the ground also helps students orient the map. For instance, a valley flowing away from you to the north could make a good match to that valley on the map. This is an excellent way to get students to notice the features around them and relate them to the map.

IV. Navigating with map alone: Sometimes you can navigate adequately without a compass. This method is effective in open areas (such as desert or high mountainous terrain), when the terrain allows you to see features easily as you travel. This is best used as an introduction when the travel is extremely easy and your visibility is good, because it will build confidence for your students.

A. Orient the map. Determine where you are. Draw a line (using a pencil, a stick, or a string) from where you are to your destination. Look along that mark, stick, or string to sight your destination.

B. This method can help students understand a bearing.

C. Model craftsmanship for your students by checking your bearing as you go.

V. Before teaching students to navigate with a compass, to determine their location, or even to orient the map with a compass, teach them the *parts of the compass* and *declination*.

A. Parts of the compass (Figure 5-3):

1. *Baseplate:* The flat, rectangular part of the compass.
2. *Housing* (capsule or bezel): This is the part that rotates, with the needle inside. Numbers appear on the top of the housing (0–360), usually in two degree increments.
3. *Direction of travel arrow:* This is either an arrow that is indicated by the words "read bearing here" or several arrows that are scribed onto the baseplate that parallel its longest edge. These arrows do not rotate with the housing.
4. *Orienting lines:* The orienting lines are scribed onto the bottom of the compass housing (capsule). When you rotate the housing, the orienting lines rotate, too.
5. *Orienting arrow:* This is the primary orienting line; it's usually red, usually an arrow, and corresponds to north on the housing.

6. *Index line:* This corresponds to the direction-of-travel arrow, but is located just under the numbers scribed on the top of the housing.

7. *Needle:* The needle floats in fluid (usually) inside the housing. The needle doesn't actually point to the north, but aligns itself parallel to the earth's magnetic field.

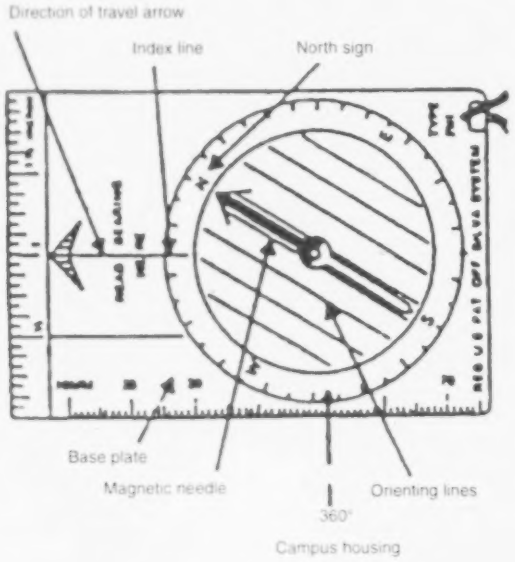

Figure 5-3

B. Understanding declination:

1. What is *north?* Many people think of the North Pole as a singular place: Santa's workshop. However, it is not so simple. To adequately explain *true north (TN)* and *magnetic north (MN)* to students, it is helpful to give a lesson on basic Earth dynamics (Earth's rotation and axis tilt). TN is where our lines of longitude converge (90 degrees latitude). However, the compass needle "points" *to magnetic north, not true north.* Magnetic north lies just north of Bathurst Island in Canada's Northwest Territories. And the compass doesn't actually point; it aligns itself with the Earth's magnetic field, which encircles the globe. The Earth's rotation and convection within the molten outer core generates the Earth's magnetic field (*National Geographic*, January 1996).

2. On some maps, you will see a GN arrow next to the TN and MN arrows in the legend. *Grid north (GN)* is created by the difficulties of taking a round object and converting it into a flat map, but it is generally not necessary to go into this with students. (The difference it makes for navigation is marginal.)

3. When we use a map drawn to one pole (TN) and a compass that measures to another pole (MN), we must take into account the difference: the declination (see Figure 5-4). So *declination is the difference between TN and MN.* If you were to draw a line from TN to MN on a map of North America and continue on that line toward the U.S., the line would eventually reach Chicago and would continue down to Florida. This line is called the *agonic line* and the declination along it is zero. (This is why instructors at NCOBS don't have to teach about declination at all.) As you travel away from the agonic line, the declination increases. For instance, the declination in the Sierra is about 15 degrees east.

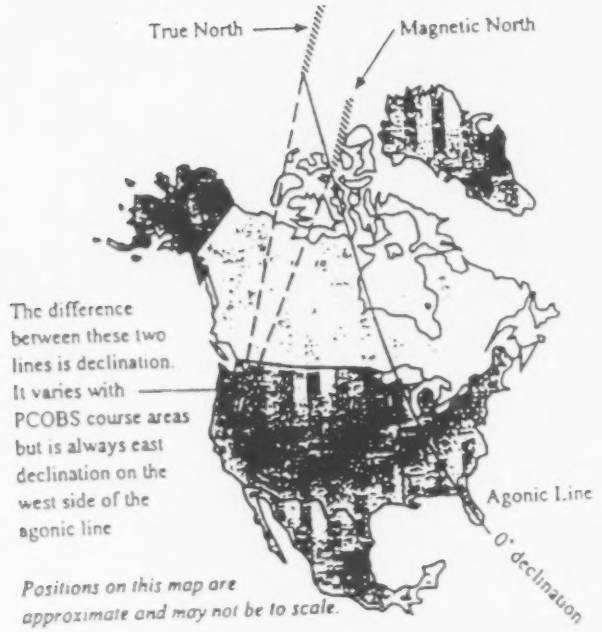
True North
Magnetic North
The difference between these two lines is declination. It varies with PCOBS course areas but is always east declination on the west side of the agonic line
Agonic Line
0° declination
Positions on this map are approximate and may not be to scale.

Figure 5-4

VI. Navigating with map and compass:

A. Orienting the map with the compass:

1. To orient the map, lay the map on a flat surface, free of the potential for magnetic interference. Things with a magnetic charge (rocks, some metal, and powerlines) alter the accuracy of your compass.
2. Rotate the compass housing so that N or 0 degrees is dialed into the direction of travel arrow or index line. Lay the long edge of the compass baseplate along the map boundary. (Section lines are often slightly skewed, so don't use them as an alternative to the boundary. The declination symbol often is not drawn to scale and may be even less accurate.) Now *rotate the map and the compass together until the compass needle points to your declination in the housing.*

B. Taking a bearing:

1. Many students wonder, "Why take a bearing?" The answer is that the map represents the ground ahead. Taking a bearing on the map allows you to see what's ahead, before you go out into it.
2. Bearings are measured from a standard, and that standard is north. So your bearing is a direction, determined by how far off it is from north, measured clockwise. If you wanted to go straight east, your bearing would be measured from 0 degrees (north) clockwise on a 360 degree circle, one quarter of the way around to 90 degrees.

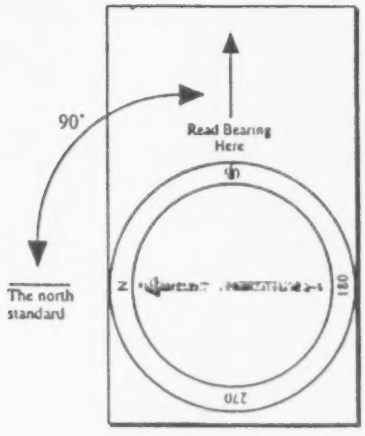

Figure 5-5

C. Following a bearing:

1. To follow a bearing, hold the compass waist or chest high, level to the ground, with the direction of travel arrow pointing away from your body. Now *rotate your body and the compass to align the needle with the orienting lines in the housing*. When your needle is aligned (this will depend on the navigational method chosen below), the direction of travel arrow will point where you'll go.
2. Some popular methods of traveling by compass include: *rifling* (one person with one bearing following staged landmarks); *leap-frogging* (sending people just ahead on the bearing and then letting the group catch up), and *shotgunning*; (several people or small groups parallel to each other within sight or sound on the same bearing).

D. True bearings—taken from a map: To take a bearing with a compass from the map, you need to determine two points. Maybe the two points are where you are and *where you want to go*. Or maybe they are the tops of two mountains. Align the edge of the baseplate along both of your points, with the direction of travel arrow pointing in the direction that you want to go. Holding the baseplate firmly to the map, rotate the compass housing until the orienting lines are parallel to the north-south lines on the map. The compass needle is irrelevant in this method; ignore it (until you follow the bearing). The bearing at the index line is a true bearing.

E. Magnetic bearings—taken from the field: To take a bearing in the field using a compass, you'll need to determine what you'll take a bearing on. Again, you are taking a bearing between two points: your present position and a peak, for example. *Hold the compass flat, and point the direction of travel arrow directly at the peak*. You may find that bringing the compass up toward your eye allows you to sight on the peak more accurately with the direction of travel arrow. *Hold the compass baseplate firmly, and rotate the housing until the orienting lines on the bottom of the compass housing are parallel to the needle*. (You may need to lower the compass slightly—still holding it flat.) The needle should align with the orienting arrow. Some compasses have a mirror that flips open over the housing to allow more accurate sighting. The number found at the index line is a magnetic bearing.

F. Using bearings—magnetic to true and back again: When students take bearings from the map and try to follow them on the ground, *they will be following the wrong bearing unless they account for declination*. What follows are some of the logical and creative means that instructors have used to help students (and them-

selves) remember when to subtract and when to add the declination. Please consider using the methods listed below that do not entail adding and subtracting *(True Approach, Magnetic Approach)*. Your students will thank you.

1. *MUGS and GUMA: Map Unto Ground Subtract and Ground Unto Map Add.* This means that going from your map bearing (true) to your ground bearing (magnetic), you should subtract the declination. Going from a ground bearing unto a map bearing add the declination. This is particularly helpful for students (and staff) who have an ear for funny mnemonic devices. This works only for east declination of course.
2. Logic: For the analysts in the group who are abstract thinkers, try using the reasoned approach. If you establish a bearing on the map with an east declination, you will be taking a bearing that is larger than if you took it with the compass because true north is to the left of magnetic north from our vantage point. So in that case, you'll need to subtract the declination when you start using the magnetic needle in the compass. The opposite is true for ground (magnetic) to map (true). Logic is a tough sell for many students and staff.
3. Alphabet: When you go from a magnetic bearing to a true bearing, you are going from M to T: forward in the alphabet. Thus you add the declination. When you go from true (map) to magnetic (ground), you go T to M, backwards in the alphabet, so you subtract. This is true only for east declination.
4. Kinetic approach: We sometimes hold the map up at waist or chest level to work with it. When you take a bearing up there on the map (true) and then apply that bearing *down* to the ground (magnetic), you are going down toward the Earth's center, so you subtract the declination. When you take ground bearing (magnetic) and then go up to the map (true) to apply it, you add the declination.
5. True approach: You can account for declination and never deal with adding and subtracting, *If you take true bearings from the map and, when applying them to the ground, orient the needle to the declination,* not on the orienting arrow (in the shed, on red, or directly to north). A true bearing of 90 degrees, taken from the map and adjusted for a 15 degrees declination (MUGS), would be 75 degrees. By leaving the bearing at 90 degrees and aligning the needle to 15 degrees on the housing, you make up for not subtracting. Place a thin piece of tape over the housing at your declination, and use it as your orienting arrow. This method emulates what some compasses do with mechanical declination adjustments. *Everyone in the group must do it the same way with this one.* When you take a bearing on the ground, you also *align the needle to the declination as shown on the housing* (use the tape method); do not align the needle to N. This gives you a true bearing that you can then apply to the map in the conventional manner.
6. Magnetic approach: Just the opposite of the above, this approach allows users to ignore subtracting and adding by always using a magnetic bearing.
    a. Map to ground: *Orient the map before you take bearings off of it. Now, align two points with the baseplate, and align the compass needle to the orienting arrow by rotating the housing.* CAUTION: This goes against many ingrained patterns for some instructors who are used to telling their students to ignore the needle when taking a bearing off the map. This method gives you the same bearing as taking a true bearing on the map and then subtracting the declination. (MUGS: 285 degrees minus 15 degrees equals 270 degrees; therefore, magnetic bearing is 270 degrees.)

b. To go from the ground to the map, you must first *orient the map*. This is especially helpful if you have only one compass. Now take your bearing on the ground as normal (it's a magnetic bearing). When you apply the bearing, *rotate the entire compass (don't touch the housing) until the orienting lines in the housing align with the needle and your point or points are along the edge of the baseplate.* This technique may be harder for the instructors to learn than the students. This approach works with both east and west declinations.

G. Putting bearings together, or triangulation.

1. Bearings are critical to navigation. The best navigators can use bearings in their heads by examining the map, understanding what it means, and then carefully watching the features around them as they travel past. *By using at least three points of reference as we travel (either visually or with compasses), we triangulate our position.* Like keeping three points of contact with the rock when climbing, these three points can keep us safe when traveling cross-country.

2. *Sometimes you can use just one bearing to determine your location.* This is known as *free triangulation* and is a great way to introduce students to finding themselves on a map. You must be on an easily identifiable feature, such as a ridge, trail, road, or along a river. Next, find a landmark that you can take a bearing on and that you can identify on the map. Apply your bearing to the map; and where your bearing crosses the feature is where you are. Because this method requires that you know what feature you're along and that you can identify the feature on which you've shot your bearing, you can use it only if you (or your students) continually keep track of where you are and of the features you will see as you travel.

3. *Using triangulation when you do not have a feature that you are following (e.g., river, trail, ridge, etc.) means only that you will substitute another bearing for the feature.* Take a bearing on a feature such as a peak. Draw or approximate that line on the map. Take another bearing on a different feature, as close to 90 degrees away from the original as possible. Draw or approximate that line, and where the two lines cross is your position. This is not as easy as it sounds.

VII. A typical problem and some solutions:

We're in the trees! We can't see anything! We don't know which mountain is which! (Lack of) vision is definitely one of the biggest obstacles to good navigation.

What can you do as an instructor when students are attempting to find themselves, but can't see their environment? What the students may have needed was a detailed plan *before* getting into the trees or into the Wonderland of Rocks. This may mean making daily travel plans (see below), with distance, elevation, and time estimates; perhaps these will need to be as detailed as indicating how long (e.g., two hours) they will walk on what bearing (e.g., 138 degrees). If you are struggling along with the students, it may mean making an educated guess and then following a bearing (see Figure 5-6). It may also mean aiming off, back sighting, or using several other tricks to get your students back on track.

A. **Aiming off** is a common and useful method of purposefully going slightly off from where you want to go. The trick is to aim off in the correct direction and to know that you are doing it. Unintentional aiming off is a nice way of saying "poor navigation." Lakes are good candidates for aiming off, because they almost always have an outlet stream. If you shoot a 90 degrees bearing from the map and intended to follow that on the ground (after accounting for declination), you would hope

to hit the lake dead on. But it's a small lake with an outlet stream that runs to the south, so you decide to shoot for the stream and then walk up it to the lake. You account for declination, and then aim off another 10 degrees. In that way, you know that you will hit the stream and can follow it north to the lake. This eliminates the possibility of the quandary: "Maybe we've gone by the lake." The outlet stream in this case is called a handrail. *A handrail is a feature that you can use to guide you as you travel.*

B. **Backsighting:** This technique is a good check to determine whether the bearing that you are following is accurate. As you follow a bearing and determine a landmark, keep track of it. When you get to the next landmark, turn around, and backsight on the previous one. To backsight, *you turn 180 degrees and place the white end of the needle in the orienting arrow* (parallel to the orienting lines in the housing). You should be looking directly back at your previous landmark. If not, you are heading off of your bearing.

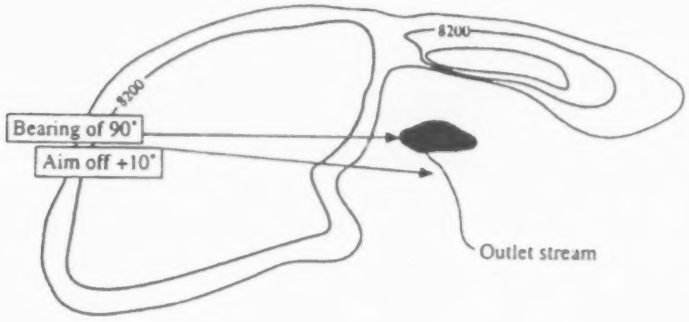

Figure 5-6

C. Additional tools: In addition to the above techniques, navigating with an altimeter, using a GPS (Global Positioning System), and using the sun and stars to determine direction are also topics that can be explored with students.

VIII. Sample syllabi:

A. Broad focus.

1. First map lesson: Introduce maps, features, expected outcomes, and rationale. Goal: To establish students' confidence.
2. Second map lesson: Review first lesson, describe features on the map including contour lines. Goal: For students to achieve a good basic understanding of map and contour lines.
3. Third lesson: Introduction to navigation—orienting the map without the compass, recognizing features on the map and land. Introduction to bearings. Goal: For students to see how the map relates to the ground.
4. Fourth lesson: Introduction to compasses, rationale for using them, orienting the map with a compass, review of bearings and land features. Goal: For students to be able to orient the map and take a bearing on a peak.
5. Fifth lesson: Navigation using maps and compasses together. Review bearings from the map and from the ground. Introduce how to account for declination and how to triangulate. Goal: For half the students to understand declination, triangulation, and navigation with map and compass together.

B. Narrow focus: Here is an example of a lesson; this one introduces maps and features.

1. *Objective*: To familiarize students with the maps and to get them to understand their responsibility for determining their own direction. Give the confidence of knowledge.
2. Explain why we use maps. Brief the students on the components of the topographic map, and give details on the following questions.
   a. Which direction is north on the ground? On the map?
   b. Orient the map to the ground.
   c. How are trails and water marked on the map?
   d. How far do we have to go in miles?
   e. Draw a line on the ground pointing toward our camp.
   f. What are the brown lines called?
   g. What is a contour interval? How many feet is it on this map?
   h. Close-together contour lines mean what? Far-apart lines?
   i. What is our current elevation? Camp elevation? Difference? Estimated walking speed? Time of breaks? Instructor teaching time? Total time to camp?
3. Split the group into thirds, give each small group a printed set of the above questions/tasks, and have them answer the questions in small groups. Return to large group; debrief the answers.
4. Make a *navigational plan* to go to camp. Have students write out a plan (time control, daily travel plan) in the group journal that includes the above relevant information (this can be repeated each night or late afternoon: Instructors brief the navigators on the next day's travel; navigators make a navigational plan for the next day; navigators brief the group).
5. *Assessment*: As you are hiking, after the activity, ask questions related to maps. Ask how far it is to camp. Ask for a volunteer to demonstrate orienting the map (or other map and compass skills) for the group the next day.

RESOURCES

Mountaineering Freedom of the Hills, Ed Peters (ed.), 1982
The Outward Bound Map and Compass Handbook, Glenn Randall, 1989
Map and Compass, Cliff Jacobson, 1988

The Venture Program at University of North Carolina

Orienteering, Map and Compass

A. PURPOSE

1. To teach the basic techniques of land navigation.
2. To teach a skill required for the successful completion of subsequent course activities and one that has carry-over value outside of the course.
3. To provide an opportunity for participants to make decisions of consequence.
4. To provide an opportunity for group interaction.

B. STAFF RESPONSIBILITIES

1. *** Staff should record the time each person starts and make sure that each individual checks back in following the event. If someone does not check back in, it is the staff responsibility to determine if the individual is still in the field and, if so, to initiate a search.**
2. *** At least one staff member should have reconnoitered the area and be somewhat familiar with the terrain.**

C. SAFETY CONCERNS

1. *** When orienteering in small groups independent of an instructor, each group will carry a whistle and a watch and will have a safety bearing that will bring them to a road.**
2. *** Minimum group size for orienteering in wilderness areas is three.**
3. Inform participants of rendezvous times and of what to do if behind schedule, if lost, if confronted by unexpected terrain or unexpected weather, or if injured.
4. Participants with experience in orienteering may go solo at UNCC, at sites with five-color orienteering maps (like Latta Plantation Park), and at meets run by the Carolina Orienteering Klubb or other clubs belonging to the U.S. Orienteering Federation.

D. TEACHING OUTLINE

1. Instructor considerations:
   a. Introduce the map separately from the compass, and do not introduce too much information at one time.
   b. Stress practice and observation at all times.
   c. Try to teach map and compass outside in a spot where there is a view.
   d. Make up "games" for practice and learning, such as "What is the bearing from me to you? Use the position of the sun and other cues to make a guess. Now check it with your compass."
   e. The sooner you can stop talking and let the participants practice, learning from questions and mistakes, the better.

2. Introduction to maps:

   a. What is a topographic map? It is a reduced representational line drawing of a portion of the Earth's surface as seen from above—from the Greek "topo" (place) and "graphic" (to draw); i.e., a line drawing of a place showing position and shape of land forms.

   b. Refer to:

      i. floor plans of buildings

      ii. road maps

      iii. aerial photographs

   c. Map care:

      i. correct folding

      ii. protecting them in plastic map bags

      iii. the importance of not losing maps

3. Significant map features:

   a. margin references

   b. colors

   c. symbols

   d. contour lines:

      i. Contours give three dimensional information in two-dimensional form.

      ii. A contour line on a map represents an imaginary line of constant elevation on the Earth's surface (e.g., a person walking along a hillside and not moving up or down is following a contour line).

      iii. The contour interval is the difference in elevation between contour lines.

      iv. Suggestion: Illustrate the concept of contours using:

         1. stone in a bowl: increase the water level

         2. lake levels are contour lines

         3. a stair case: viewed from above, each step is a contour line.

         4. lines drawn on knuckles

   e. Slope and elevation features will be indicated by the pattern formed by the contours. Examples:

      i. steep slopes/cliffs: contours are closely spaced

      ii. gentle slopes: contours are farther apart

      iii. ridges: V-shaped contours pointing downhill

      iv. valleys: V-shaped contours pointing uphill

      v. summits: contours form closed circle

   f. Uphill/downhill: The elevation level of the contours is indicated by a numbered index line (darker brown) every fifth contour. Suggestion: Have participants draw contour maps of a rock and a VW or, use lined pages of a journal; darken every fifth line, and give it a value to indicate uphill/downhill directions. Fill in between the lines to illustrate concave/convex slopes.

   g. The concept of steepness and the number of contour lines per mile introduces the necessity for a scale.

4. Walking time: Participants should be made aware of the (very approximate) walking-time formula:
    a. 2 mph on flat ground plus 1 hour every 1000 feet up
    b. 2 mph on flat ground plus 1/2 hour every 1000 feet down
5. Compass:
    a. Describe the parts:
        i. base plate with direction of travel arrow and straight edge and ruler
        ii. compass housing with 360 degree markings and orienting arrow
        iii. magnetic needle (north end)
6. Orienting the Map: Although it is not always necessary to orient the map in order to take a bearing, stressing the importance of doing so helps prevent unnecessary errors in calculation. Make sure participants get into the habit of doing this.
    a. Using land features as references, rotate the map until recognized features on the ground align with those on the map.
    b. Set the compass at a 360 degree bearing. Place it on the map so that the side of the base plate lies along the magnetic north arrow in the bottom margin of the map and with the direction of travel arrow pointing north. Turn the map with the compass until the north end of the magnetic needle points to the N on the compass housing (i.e., the magnetic needle and the orienting needle align). The map is now oriented.
7. Taking a bearing from the map:
    a. Describe the difference between true north and magnetic north (magnetic declination). NOTE: In western North Carolina magnetic declination averages 1/2 degree, therefore, treat true north and magnetic north as the same. Teach magnetic declination if time and interest permit.
    b. Define "bearing": A bearing is the horizontal angle measured clockwise from north to your objective.
    c. Orient the map.
    d. Lay the long edge of the base plate on the map along a line from the starting point to the objective. The direction of travel arrow should point toward the objective.
    e. Rotate the compass housing until the housing arrow lines up with the magnetic north arrow.
    f. Read the bearing where the direction of travel arrow meets the housing.
8. Walking a bearing (after having calculated the bearing):
    a. Hold the compass level and in front of you, so that the direction of travel arrow points straight ahead.
    b. Rotate your whole body until the magnetic needle lies directly over the orienting arrow. Make sure the north end of the magnetic needle points to N on the compass housing. The direction of travel arrow now points to your destination.
    c. Techniques for walking along a bearing:
        i. Line of sight: Walk to an obvious landmark, such as a tree or boulder, that is directly on the bearing.
        ii. Leap frog: Use other people as line-of-sight subjects while bushwhacking. This is a good method to use at night, using flashlights as markers.

iii. Aiming off: A 1 degree error over 1 mile will put you 90 feet from the target. Therefore, deliberately aim left (or right) of the target, particularly if heading for a point on a road, ridge, or stream. On reaching this obvious linear feature, turn in the appropriate direction to compensate for the error, and then walk to the target.

9. Triangulation: In order to locate and plot your position when two or more prominent landmarks are visible:

   a. Determine the bearing of one of the landmarks
   b. Orient the map
   c. Place the compass on the oriented map so that one side of the base plate intersects the map symbol for the landmark
   d. Keeping the edge of the base plate on the symbol, turn the entire compass on the map until the orienting arrow and the compass needle point to north on the map
   e. Draw a line on the map along the edge of the base plate, intersecting the prominent landmark symbol. Your position is somewhere along this line
   f. Repeat this procedure for the other prominent landmark. The second landmark should be as close to 90 degree from the first as possible. Your position is where the two lines intersect.
   g. NOTE: If you are located on a prominent ridge, stream, or road marked on the map, only one calculation from a prominent landmark should be necessary. Your position will be where the drawn line intersects this linear feature.

10. Orienteering strategies and terms:

   a. Continual awareness of the surroundings and reference to the map are the only ways for navigators to know precisely where they are, especially in dense North Carolina forests, where sighting a prominent landmark is rare.
   b. Keep map oriented.
   c. Use thumbing to keep track of your location on the map.
   c. Utilize handrails, catching features, check points, attack points.
   d. Rough vs. standard vs. precision orienteering.

BICYCLE TOURING

The Biking Expedition

Safe Cycling

Below are the rules. Safe cycling forms the foundation for the survival of TBE. Leaders, when assessing the ability level of their group, may choose to implement further safety policies as non-negotiable so long as they benefit the overall safety of the group.

ROAD TOURING

Helmet: Wear it (properly) whenever straddling or riding a bike.

Traffic: Since you are technically a vehicle on the road, you must adhere to all traffic rules and regulations such as stop signs, traffic lights, etc.

No night riding: Stop before dusk. Take a taxi, walk, or pay a truck if necessary.

Single file: Ride single file with traffic; no riding side-by-side.

Only one person on a bike: No riding double on one bike.

Keep right: Ride in straight line as close to right as is safe.

Spacing: Keep 100 feet between cyclists, except to pass.

Passing: Permitted only if a leader deems that his/her students can judge when adequate visibility and space is available for passing.

Descending: Stay at a speed at which you'd feel comfortable falling.

Ascending: Do not swerve or zig-zag. Better to walk uphill than to swerve.

Warning: Give ample warning to cars, and avoid quick stops or turns.

Get off the road: When stopping to rest or to make repairs, get completely to the side of the road.

Rain and bad weather: There are a variety of possible scenarios. One set policy is that if you hear thunder or see lightning, you must regroup and not resume riding till neither are present. The same applies to any other extreme weather condition (i.e., hail and heavy winds). Don't wait until it's pouring to start your regroup; it could be 20 minutes before the end of the group catches up.

Good visibility, light traffic, and drizzle: It may be acceptable to ride.

Cold rain: Make sure students are dressed appropriately; check frequently to make sure everyone is OK.

Heavy downpour: Regroup and ride only if visibility is greater than 500 feet.

Heavy traffic and rain: Consider stopping or walking.

Leader is always in the back: After the first week in the trip, we encourage you to choose students to lead for the day. However, a TBE leader must always be the last rider so no one is ever left behind or without help.

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Stopping alone: It is fine for a student to stop on her/his own for a bathroom break or water fill. However, when doing so, a student must leave the bike visible from the road.

Crossing roads: When you have more than two lanes of traffic, ALWAYS have a leader on each side of the road, helping students cross. With young students, you might want to do this at most intersections.

Parking lots: Groups must walk bikes in and through parking lots. Cars are constantly pulling in and out, doors opening, toddlers running around. Walking is the safest option.

Intersections: We walk bikes across intersections.

Flag Rule: Every TBE touring bike has a reflective flag attached to the bike to make riders more visible.

Drop-on-a-hill rule: If you come up to a hill that seems like it might have potential for an accident for any reason (e.g., steepness, bad shoulder, rough surface), then leave a drop in the middle of the hill off the road to prevent an accident and to limit the students' speed.

The dog rule: If a dog starts chasing you or a student, stop peddling. If that does not work, stop your bike and get off, keep bike between you and the dog, and back away from your canine friend. Don't let the dog distract you from oncoming cars, trees, etc.

We are dog lovers, but not all dogs are people lovers. You should always be aware of barking dogs, even when you are riding your bike. Bike riders make juicy targets for overzealous dogs in the back of pickup trucks. If you hear a dog barking from an oncoming vehicle, be careful.

Clothing: While cycling, students must wear closed-toed shoes, shirts, and shorts.

Dangerous areas to watch for on road: In dangerous areas on the road, we urge leaders to set an example by using caution. Students often follow the behavior you're modeling so keep this in mind!

Descents: Excessive speed coupled with a heavy load on the rear of the bike results in lack of maneuverability and loss of control.

Spacing: Kids fight our rule requiring 100 feet between bikes because they love to talk while riding. However, riding too close can easily result in collisions.

Regrouping stops: Often when regrouping, students stop atop a blind crest, or in the middle of the road, or ride out across the street without looking, because they are excited to see their friends. They also tend to sit on the edge of the road, dangling their legs into the lane. Make sure they get off the pavement to regroup.

Ascents: Watch for zig-zagging. Reiterate that they can walk uphill if they can't keep the bike straight.

Starting up: Most people forget to put their bike in low gear when they stop. Thus when they start off again the high gear causes them to stand on their pedals and wobble. The easiest way to correct the situation is to lift the rear of the bike while the student shifts into a lower gear.

Stopping: Sometimes we all forget that our bike is loaded, straddling it loosely after we stop. The smallest consequence will be a "chain sculpture" (grease makes an outline of the chainring on your leg), while the worst consequence can be the bike falling and the chainring ripping a gash in the back of the person's leg.

Cycling in towns: You should walk in and around towns, especially with young students. There are usually many turning movements (e.g., car doors opening, cars backing out, entrances of parking lots).

Crossing Railroad Tracks: A drop must be left before the crossing with instructions to walk over the tracks. On Coast to Coast, the office will give more specific instructions.

Bridge Crossings: Most times, it is easier and safer to have students walk their bikes across a bridge on the sidewalk. If there is no sidewalk or if the bridge is too narrow to walk across safely, have both leaders ride side-by-side behind the group to cross the bridge. This enables the group to take up the whole lane so cars are unable to pass.

Water on the road:

Puddles: When you ride through small puddles, usually the only result is wet feet and/or panniers. When going through deeper puddles, the water will slow you down and can pull the handlebars from your hands. It's sometimes better to go slow or walk around deep puddles. Also, be aware that wet brakes don't work as well as dry brakes!

Running Water: If you need to cross running water on pavement, the leader should assess the safety conditions. At minimum a drop should be left warning students of running water. If the water is deep or fast running, regroup and walk.

Grooved pavement or grids on bridges: In some areas you will find grooved pavement or bridges that have metal grids instead of pavement. In both cases, the leader needs to assess the riding ability of the group and decide if the students can ride or must walk. In either case, leave a drop to notify students of conditions.

Overtaking walkers/horses/other cyclists: If you need to pass a slower person, pass on the left. Always yell to the person that you will be "Passing on the left." This gives them warning that you will be going by.

MOUNTAIN BIKING

The Biking Expedition

Mountain Biking

Road rules always apply when on the road. Students must know these as well as mountain biking rules.

Helmet: must be worn at all times.

No night riding: You must stop before dusk, which is a very dangerous time of day to bike.

Leave no trace: Practice low-impact cycling. This means staying on the trail.

Always yield trail: Make known your approach well in advance. A friendly greeting works; startling someone may cause you to lose your trail-access privileges. When passing pedestrians or horses, show respect by slowing to a walk or even stopping. Anticipate that other trail-users may be around corners or in blind spots.

Spacing: This depends on the speed of the riders, the trail width, number of obstacles, and so on. Tell your students that spacing will vary when off-road but that there are a few areas that will require extra attention.

Uphills: Prior to a technical uphill, it is advantageous to space out up to 100 feet. This will prevent you from having to get off of your bike just because the person in front of you did.

Technical descents: Students should space out 50 feet. It really hurts to get run over.

Fast singletrack: riding on your friend's rear tire may be fun, but getting a branch in the eye or making a dog pile with bikes isn't.

Single file: when to ride single file

Single-track: single file, of course

Flat dirt roads: dangerous because cars travel so fast! Stay in single file; don't worry about spacing.

Steep dirt roads: single file and space out for safety.

Double- track: abandoned dirt roads/fire roads are okay to ride double file, but be alert for fellow bikers/hikers/horseback riders.

Keep right: This is extremely necessary on dirt roads; watch out for vehicles.

Passing: Teach your students to say, "Passing on the left" or "On the right." Keep the sport polite.

Descending: Same as the road touring, don't override your ability.

Leader is always in the back: Yes, always! The Front? Due to less precise maps, it's advisable to have the front leader make all drop decisions. Students can ride ahead as they earn your trust, but give strict guidelines as to when to stop and wait for you.

Stopping alone: Leave the bike by trail-side, and place it so that the next rider will see it.

Bike in control: Ride in control, especially while descending. Barreling down at warp speed is a no-no. You can have fun and still challenge yourself, but keep in mind the general rule: Ride no faster than you'd feel comfortable falling. Showing off—jumping, tricks and excessive speed—has been a major factor in most mountain bike injuries.

Drop on a hill rule: If you come up to a hill that seems like it might have potential for an accident for any reason (steepness, very technical, rocky, ruts, etc.), then leave a drop in the middle of the hill off the trail to prevent an accident and to limit the students' speed.

The dog rule: If a dog starts chasing you or a student, stop peddling. If that does not work, stop your bike and get off, keep the bike between you and the dog, and back away from your canine friend. Don't let the dog distract you from oncoming cars, trees, etc.

Poor visibility: Stop! Don't ride if you can't see at least 200 feet ahead.

Rain and bad weather: Read the section under Road Touring.

Heavy downpour: Assess the terrain and strength of rain to determine your group's riding speed.

Light rain: Even a little rain can make roots extremely slick or make a rocky downhill into a slip-n-slide. Gauge your group's speed accordingly. Rain may also dramatically cut down on visibility by messing up your glasses.

Poor braking: Wet rims significantly reduce your ability to stop, so make sure your students are aware of this and ride accordingly.

DANGEROUS AREAS ON MOUNTAIN BIKES

Mountain biker on road: Whenever riding on the road, mountain bikers must follow road touring safe riding rules. Some mountain bikers are notoriously careless road-riders—watch out!

Poor visibility: It gets darker in the woods. Avoid late afternoon rides in areas with thick forest cover.

Bike adjusted properly: Make sure brakes are adjusted and that quick releases are clamped tight.

Maintain control: Speeding on fast, smooth fire-road descents can be dangerous.

Ruts: These are deep tracks in your path left by vehicles or running water. They are as dangerous as railroad tracks are to road bikes. Ride them out, or stop and take yourself out of the rut.

Wet roots and rocks: Caused by dew or rain; it's easy to slide out on these surfaces. Watch out!!!

Sand, dirt and loose gravel: Although mountain bikes will be traveling on this terrain, they are more difficult to balance and wheels can kick out during turns.

Water bars: These are drainage ditches that run across dirt roads, and they look like upside down speed bumps. They are usually placed exactly where you wouldn't want to run into one: on steep terrain. Most TBE have occurred in water bars, so watch out for them and have your group adjust its speed accordingly. (Drops on hills are one method to control speed.)

Group riding: Students must make adjustments to their behavior for the good of the group. Students riding dangerously; that is too fast or taking risks, discount the group. If students push themselves to the point of being unsafe, they put the whole group at risk and the nature of the experience changes. The group and leaders then have to deal with the consequences of the student's behavior. This is selfish behavior that risks the safety and health of the whole group for the benefit of an individual or a few.

"You ride a bicycle because it feels good. The air feels good on your body; even the rain feels good. The blood starts moving around your body, and pretty soon it gets to your head, and, glory be, your head feels so good you start noticing things. You look until you really start whistling nice little original tunes to suit the moment. Words start getting caught in the web of poetry in your mind. And there's a nice feeling, too, in knowing you're doing a fundamental life thing for yourself: transportation. You got a little bit of your life back! And the thing that you use is simple, functional, and relatively cheap."

Nicholas Johnson
Test Pattern For Living

"It is curious that physical courage should be so common in the world and moral courage so rare."

Mark Twain

BOULDERING

University of New Hampshire

Outdoor Education Program
Bouldering Policies

The Kinesiology Department uses bouldering as a tool to develop climbing techniques, physical strength, and as a method of warming up and stretching prior to climbing. Bouldering is typically covered in Top Rope Rock Climbing and Lead Rock Climbing classes. There are two sections of Top Rope (TR) Rock Climbing and one section of Lead Rock Climbing each fall, as well as two sections of TR during the summer sessions The policies for instructing bouldering fall within those respective classes. The goal of teaching students how to boulder is to provide them with the opportunity to safely learn climbing methods and skills that they can apply when climbing roped up. Most bouldering is taught at Pawtuckaway State Park, but there are many sites on the UNH campus that are superb bouldering areas.

I. Site Selection

Program staff are aware of and are familiar with climb sites. All sites are pre-scouted and pre-climbed by instructors, and only established routes are climbed. Climbs are clear of obvious hazards (e.g., water, loose rock) and must not interfere with native flora or fauna (e.g., endangered species). Staff understand that weather conditions and natural phenomena can vary and impact the environment at the site. When appropriate, climbers stay within visual contact of staff.

II. Instructor Qualifications

A. Program staff are approved UNH climbing instructors or have the permission of the program.

B. Program staff are familiar with area they are teaching in.

C. Program staff have a minimum first aid certification level of current National Registry Emergency Medical Technician (NREMT).

III. Student Qualifications

A. All students are aware of proper spotting and climbing techniques.

B. All students have filled out medical forms to the best of their knowledge.

C. All students have read, understood, and signed assumption of risk form.

IV. Equipment:

A. All equipment is inspected at the beginning and end of every day of climbing.

B. Students are instructed to report any lost or damaged equipment to the instructor immediately.

C. Participants have or are provided with clothing and equipment necessary for safe completion of the activity.

V. Bouldering Site Management

A. Safety:

1. Helmets are worn by all instructors and participants while at the bouldering site.
2. Program staff comply with management policies and protocols of relevant climb site (see UNH site management policies for appropriate information).
3. Program staff are aware of any relevant physical or psychological conditions that have been disclosed by participants through appropriate medical and release forms, as well as those that may develop due to the extreme nature and stress of climbing.
4. Instructors are aware of environmental conditions (e.g., weather, rock fall, route conditions) and take appropriate preventative safety measures.
5. Instructors make students aware of appropriate, safe route descent avenues (e.g., descent trail) prior to climbing.
6. Only one person on each boulder problem at a time.
7. Climbers do not exceed their own height from the ground.
8. Climbers are spotted at all times.
9. Students perform appropriate warm-up exercises prior to climbing.

   These may include but are not limited to:

   a. stretching
   b. cardiovascular work
   c. visualization and meditation

10. Instructor-to-student ratio does not exceed a safe level.
11. Participants have or are provided with clothing and equipment necessary for safe completion of the activity.
12. Instructors put climbers on climbs realistically within their ability level.
13. Participants are instructed to secure loose clothing and hair and remove objects from pockets, to avoid injury in the event of a fall.

B. Spotting:

1. Participants are instructed in appropriate spotting techniques prior to bouldering. These include:

   a. Hands up, thumbs in, arms extended in the "bumpers-up" position.
   b. Feet offset one in front of the other.
   c. How to direct rather than catch a fall, or "saving the head."
   d. Awareness of climber-to-spotter weight ratios and their effects

2. During bouldering activities, the following commands are used:

   a. Climber: "Ready to spot?"—I am ready to climb.
   b. Spotter: "Ready."—I am prepared to direct your fall.
   c. Climber: "Watch me."—There is a difficult move. I may fall.
   d. Spotter: "I've got you."—I'm watching you closely.
   e. Climber: "Safe."—I am secure on the top of the problem or on the ground.
   f. Spotter: "Safe."—I am no longer spotting.

ARTIFICIAL WALL CLIMBING

Outdoor Recreation Coalition of American

Climbing Gym Association

All ORCA information is from the Accepted Industry Practices Handbook, *September 1996 Edition. A publication of the Climbing Gym Association (CGA). The CGA is a subgroup of the Outdoor Recreation Coalition of America, the trade association of the human powered outdoor recreation industry.*

RISK MANAGEMENT

There are estimated to be more than 250 climbing gyms as well as a number of climbing walls in schools and recreation centers in the United States. Industry sources indicate that the recent increase in the number of participants in rock climbing place it among the top 10 growth sports in the United States. This dramatic growth has significant implications for the safe operation of climbing gym facilities. The CGA is attempting to provide a foundation on which a climbing gym operator can develop an effective risk management program. The objectives of that program may include:

- Complying with CWIG (Climbing Wall Industry Group) climbing wall standards.
- Educating customers as to the risks of climbing.
- Minimizing the risk of injuries to customers.
- Developing an effective program to handle accidents if they occur.
- Providing a legal safety net to mitigate the impact of an accident and any resulting litigation.
- Fostering a positive public image of the climbing gym industry.
- Obtaining adequate economic protection for customers and the business.

A strong safety record in the climbing gym industry is vital to sustaining its strong growth rate and, therefore, should be a common goal of all CGA members and industry participants.

New Customers

The administration of new visitors to the climbing facility is critical to the facility's risk management program. A common industry practice is to control access to the facility so that the safety skills of each customer can be assessed. It is also necessary to inform any visitor of the risks inherent to climbing in a gym environment before they are allowed into the climbing area.

Access can be controlled in many ways, the most common being the presence of a "front desk" inside the entryway of the facility. The personnel at the front desk will perform several important procedures prior to admitting a customer.

Release of Liability/Waiver of Claims

Each customer is required to review and acknowledge the risks of using the facility and release the business from liability before using the gym facility. The Release of Liability form must be completed by every customer that uses the facility, **without exception.** Notes written by customers are not considered sufficient release of liability. In the instance of a minor (individuals under the age of 18), consult legal counsel to determine the requirements for your particular state. The review and modification of this form by a qualified attorney is essential in complying with your state's statutes (ORCA has produced a publication titled Developing an Allocation of Risk Document). The Release of Liability form is the first step in managing the customer's and the facility's risks.

In addition to the basic legal requirements of the release form, additional information regarding the new customer is often documented. The user's address, telephone number, special medical considerations, climbing experience, and emergency contact are appropriate to record.

Notification and Qualification

The facility staff should discuss with each new customer her/his climbing experience, to determine her/his level of competency. For example, a person with no experience may be referred to a supervised program or to a class for instruction. A more experienced climber may be ready for a top rope or lead climbing safety/belay check. At a minimum, the "skills interview" of a customer should include the following types of questions:

- Climber's age.
- The number of years of climbing experience and how recently s/he has climbed.
- Level of climbing competency (rating system level).
- Type of climbing experience (sport climbing, traditional climbing, mountaineering).
- Proficiency in belay skills (top roping vs. leading).
- Experience in a climbing gym environment.

The goal of the interview is to establish the customer's level of competency so that s/he can utilize the facility without personal supervision from the facility's staff. The staff must give adequate consideration to the information gathered to avoid increased liability.

New customers must be informed of the inherent risks and dangers of climbing as a sport. Although the skills acquired while climbing in a natural rock area are transferable to the climbing gym, there are significant differences between the two environments. For example, quickdraws in the lead area are typically spaced more closely in the climbing gym, creating more likelihood of a "Z" clip or "back" clip situation. A gym is often more crowded than an outside climbing area, requiring greater awareness of other climbers. A climbing gym is no safer than the "natural" climbing environment. It may be more controlled, but there is always a risk of injury. Customers must be informed that this risk exists.

The facility staff also has a duty to notify each new customer of the facility's rules. The rules should be prominently posted in the facility. The goal is not to frighten customers, but rather to make customers aware of their responsibility in creating a safe climbing environment. A customer should also be made aware of any special safety considerations applicable to your facility.

Age Requirements

Considerable discussion has occurred within the industry regarding age restrictions in the climbing gym environment. There has been no consensus as to a minimum age limit for climbers; however, there has been general agreement that a facility should establish a minimum age for belaying. This limit relates to one's ability to retain consistently reliable proficiency in the use of technical climbing equipment, and the ratio of belayer weight and strength to climber weight. Each gym operator should assess

the ability and maturity of their young clientele and then determine an age at which they believe an unacceptable safety risk exists. The young customers' abilities to comply with facility rules suggests that a minimum age for climbing without adult supervision is also appropriate. Once again, the facility operator should determine an age restriction based upon their facility, clientele, and any legal limitations imposed by state law.

Belay Test

A customer belay check or test prior to engaging in roped climbing is an essential element of any risk management program. Each belay check should be documented and the records stored so that a customer's belay skills can be verified with each visit to the gym. The following steps are recommended as a minimum belay check requirement:

- Prior to beginning the test, the staff member giving the test (tester) must be aware of the climber's previous climbing experience and skill level.
- Prior to beginning the test, the tester must confirm that the climber has signed a Release of Liability form.
- The climber should be informed briefly of the test requirements and any particular rules of the facility related to belaying and roped climbing.
- The climber puts on a safety harness, demonstrating the appropriate application and use of the climbing harness.
- The climber correctly attaches the climbing rope to his/her climbing harness with a figure eight follow through knot.
- The climber demonstrates proper setup of the belay system on his/her harness. The belay device, locking carabiner, and rope should be given to the climber as separate pieces.
- The climber demonstrates proper use of the belay commands and proper belay technique, with particular emphasis on proper use of the brake hand.

To determine whether the climber is allowed to complete a more advanced test, such as a lead climbing check, the tester must perform a skills interview. This will alert the tester to a customer's climbing history. Informing the climber of the test requirements and what constitutes success and failure is important to communicating that the goal of the belay test is to determine skill level, not to prevent the climber from enjoying the facility. Some climbers may not be familiar with certain terminology (such as "back clip") used in a gym or sport climbing environment. Their skills, however, may still be sound. The skills interview also provides an opportunity to clarify requirements and emphasize certain safety aspects of the gym. Because of the potential noise level and crowded nature of gyms, it is worth emphasizing the importance of using belay commands loud enough so your partner can hear them and the importance of always checking your partner's belay setup.

The climber should demonstrate how to put on her/his harness properly and how to fasten the buckles correctly. The rope is then handed to the climber without a knot so that he/she can demonstrate completion of a figure eight follow through knot. Each climber (if there is a pair being tested) must individually demonstrate all the skills. It is also recommended that the belayer catch a short fall during the demonstration of belay technique. Emphasis on proper use of the verbal belay commands and proper use of the brake hand are important.

A written record of the results of the belay test must be maintained. Orderly files containing this information should be readily available if an accident or legal claim should occur. At a minimum, the record should include:

- Climber's name, address and telephone number.
- Tester's name.
- Date of test.

- Checklist of key test elements as described above.
- Climber's signature acknowledging facility rules.

The belay test procedure and skills interview are the first steps an operator can take to maintain a safe and enjoyable environment for her/his customers. But they are insufficient to address ongoing gym risk management by themselves: Facility or gym area, supervision is absolutely necessary.

NOTE: Orderly files of all documentation should be maintained in an easily accessible manner in case of accident or legal claim. In addition, a database or card system allows simple and easy verification of a climber's skills with each gym visit.

Instruction Program

Most climbing gyms provide organized instruction for their customers. Classes typically instruct students in the fundamentals of climbing safety, technical proficiency, and technique. The first goal of any class should be the safety of its participants, regardless of skill level or size of the class. Following are several considerations in developing a climbing instruction program.

- Are the instructors adequately trained, and do they possess the experience to teach the assigned class? This may be determined by requesting a climbing resume, contacting references, or requiring an apprenticeship period.
- Is there an appropriate ratio of instructors to students? Input from an experienced instructor is important in establishing this ratio.
- Develop written lesson plans and instructor policies and guidelines, and review them with instructors.
- Establish a performance review process for instructors.
- Provide class participants with a class evaluation form.
- Review available published resources on a periodic basis to determine if the facility's safety equipment and practices are consistent with current industry practices (CWIG and the CGS of ORCA publish this type of information).
- Class participants must be informed of the risks inherent in climbing. The differences and safety considerations between gym climbing and outdoor climbing must also be reviewed. Climbing on artificial walls does not prepare an individual for the outdoor climbing environment. Encourage individuals interested in outdoor climbing to contact a professional outdoor guide, such as the American Mountain Guides Association (AMGA), the Association for Experiential Education (AEE), or a certified outdoor program.

Climbing gyms may choose to operate an outdoor climbing program on natural rock. These gyms should consider completing the AMGA or AEE review process.

Top Rope Rock Climbing

University of New Hampshire

Top Rope Rock Climbing Policies

The Kinesiology Department offers two sections of Top Rope Rock Climbing each fall as well as two sections during the summer sessions. The goal of Top Rope Rock Climbing is to provide students with the opportunity to learn basic climbing methods and skills at nearby Pawtuckaway State Park. The maximum enrollment for each section is limited to 13 students. Teaching staff for each will consist of at least one head instructor with teaching assistantships available. A minimum of one teaching assistant per class is recommended to assist the instructor with logistics and instruction.

I. Site Selection

Program staff are aware of and are familiar with climb sites. All climb sites are pre-scouted and pre-climbed by instructors, and only established routes are climbed. Climbs are clear of obvious hazards (e.g., water, loose rock) and must not interfere with native flora or fauna (e.g., endangered species). Staff understand that weather conditions and natural phenomena can vary and impact the environment at the site. When appropriate, climbers stay within visual contact of staff.

II. Instructor Qualifications

A. All instructors are approved UNH climbing instructors or have the permission of the program staff.

B. All instructors know how to perform climber rescues (e.g., pick-off's, raising and lowering).

C. All instructors have a minimum first aid certification level of current Nationally Registered Emergency Medical Technician (NREMT).

III. Student Qualifications

A. All students have permission from the instructor prior to climbing.

B. All students have filled out medical forms to the best of their knowledge.

C. All students have read, understood, and signed Assumption of Risk form.

IV. Equipment

A. All equipment is inspected at the beginning and end of every day of climbing.

B. Students are instructed to report any lost or damaged equipment to the instructor immediately.

C. Any carabiners and/or other hardware that are dropped more than 10 feet onto a hard surface should be inspected immediately by instructor and retired accordingly.

D. Any webbing that is abraded and/or has been in use for five seasons should be retired.

E. Avoid stepping on ropes.

F. Avoid exposing ropes to excessive sunlight.

G. Keep ropes clean by washing regularly.

H. Protect ropes and webbing from sharp edges.

I. Train students to check ropes for damage when coiling and stacking.

J. Keep a comprehensive record of each rope's use:

1. Type of use:

a. Heavy: Lowering on tension, rescue work, etc.

b. Medium: Top-roping

c. Light: Ropes taken and not used, ropes used for ground school

2. Date and location of use

K. Immediate retirement of ropes should be considered if they are subjected to severe stresses such as excessive abrasion or extreme forces.

L. Participants have or are provided with clothing and equipment necessary for safe completion of the activity.

M. Equipment manager and instructors will follow all UNH maintenance guidelines.

V. Belaying and Tying In

A. The following knots and their uses should be taught:

1. Figure nine
2. Figure eight on a bight
3. Bowline
4. Munter hitch
5. Prussik
6. Overhand knot
7. Clove hitch
8. Girth hitch
9. Water knot
10. Other specialty knots

B. Climber ties into opposite end of the rope with a figure nine tied directly through the leg loops and the waist belt (or secure tie-in) of the harness, wrapping around each twice before retracing the figure nine.

C. Students are instructed to check for and secure loose hair and clothing before climbing/belaying.

D. Belayer is secured by clipping into an anchor (if necessary) through the front of the harness using a locking carabiner. This must be done through leg loops or secure tie-in point.

E. Belayer must use approved belay devices or techniques:

1. Stitch Plate
2. Figure eights
3. Petzl Gri-Gri's
4. Body belay
5. Tubers
6. ATCs
7. Munter hitch
8. Other approved devices

F. Belayers never remove rope from the brake hand.

G. Before climbing, the belayer and climber perform safety checks on themselves and on each other. This includes:

1. Helmets are on and secure.

2. Harness buckles are doubled back.

3. Climber is tied in correctly with figure-nine knot.
4. Squeeze test is performed on locking carabiners (anchor and belay device).

H. During climbing activities, the following commands are used:

1. Climber: "On belay?"—Is the belay on?
2. Belayer: "Belay on."—The belay is on.
3. Climber: "Climbing."—I am, or will resume, moving up.
4. Belayer: "Climb."—I am prepared for you to climb.
5. Climber: "Up rope."—Please pull in all the slack in the rope.
6. Climber: "Tension."—Take in the slack, and hold my weight.
7. Climber: "Watch me!"—There is a difficult move. I may fall.
8. Climber: "Slack."—Belay is too tight. Release some slack.
9. Climber: "Lower me."—Belayer lowers climber to the ground safely.
10. Climber: "Belay off."—I am secure. You may release your belay system.
11. Belayer: "Off belay."—The belay has been released.
12. Either: "Thank you."—I heard you.
13. Anyone: "ROCK!!"—Falling object, take cover, do not look up. Yelled repeatedly until ANY object that has been dislodged has stopped.
14. Anyone: "ROPE."—A rope is about to be dropped. Take cover. Wait for a response.
15. Anyone: "Clear."—You may drop your rope. The area is clear.
16. Either: "On rappel."—I am beginning to rappel.
17. Either, "Off rappel."—I am off the rope, you may begin rappelling.

VI. Anchors

A. Natural anchors:

1. Large well-rooted live trees at least 6 inches in diameter.
2. Large immobile boulder or other secure rock protrusion.

B. Artificial anchors:

1. Anchor must be S.R.E.N.E.:
   a. Solid
   b. Redundant
   c. Equalized
   d. Non-Extending
2. There should be three solid anchors.
3. Angles formed by slings at tie-in point should be less than 90 degrees.
4. Webbing should be tied off with a water knot with double-overhand knots as backup.
5. Anchors will be built to reduce rope abrasion as much as possible (i.e., extend webbing so that carabiners extend over the edge of the climb).
6. Rope should be connected to the anchor by two locking carabiners with opposing gates.

VII. Climbing Site Management

A. Safety:

1. Helmets are worn by all instructors and participants while on the climb and in the rock-fall zone at the climb site.
2. Only one climber on a climb at a time.
3. Students are clipped into an established anchor when they are closer than 6 feet from the edge of the cliff.
4. Student-to-instructor ratio does not exceed a safe limit.
5. Students perform appropriate warm-up exercises prior to climbing. These may include but are not limited to:
   a. stretching
   b. bouldering
   c. cardiovascular work
   d. visualization and meditation
6. Instructors choose climbs that are appropriate to students' climbing ability.
7. Program staff comply with management policies and protocols of relevant climb site (see UNH Site Management Policies for appropriate information).
8. Program staff are aware of any relevant physical or psychological conditions that have been disclosed by participants through appropriate medical and release forms, as well as those that may develop due to the extreme nature and stress of lead climbing.
9. Instructors are aware of environmental conditions (e.g., weather, rock fall, route conditions) and take appropriate preventative safety measures.

B. Progression of Skill Development:

1. Instructor observation is used to assess participants' top-rope climbing ability. This information will be used to determine appropriate grade level for climber.
2. Instructors will provide students with constructive feedback after every climbing session.

C Spotting:

1. Staff instruct participant in proper spotting techniques.
2. Students shall be spotted when bouldering (See Bouldering protocols) and while moving off the ground (i.e., height at which rope stretch will not allow climber to hit the ground).

RAPPELLING

University of New Hampshire

Outdoor Education
Rappelling Policies

The Kinesiology Department uses rappelling as an integral part of its programming. The instruction of rappelling is covered in various classes in their teaching progressions. These include but are not limited to Top Rope Rock Climbing, Lead Rock Climbing, The Family Expedition Program, and High Altitude Mountaineering.

I. Site Selection

Program staff are aware of and are familiar with rappel sites. All rappelling sites are pre-scouted and pre-climbed by instructors, and only established routes are climbed. Rappels are clear of obvious hazards (e.g., water, loose rock) and must not interfere with native flora or fauna (e.g., endangered species). Staff understand that weather conditions and natural phenomena can vary and impact the environment at the site. When appropriate, rappellers stay within visual contact of staff.

II. Instructor Qualifications

A. All instructors are approved UNH climbing instructors or have permission of the program.

B. All instructors know how to perform climber rescues (e.g., pick-offs, raising and lowering).

C. All instructors have a minimum first aid certification level of current Nationally Registered Emergency Medical Technician (NREMT).

III. Student Qualifications

A. All students must have permission from the instructor.

B. All students must have filled out medical forms to the best of their knowledge.

C. All students must have read, understood, and signed Assumption of Risk form.

IV. Equipment

A. All equipment is inspected at the beginning and end of every day of climbing.

B. Students are instructed to report any lost or damaged equipment to the instructor immediately.

C. Any carabiners and/or other hardware dropped more than 10 feet onto a hard surface should be inspected immediately by instructor and retired accordingly.

D. Any webbing that is abraded and/or has been in use for two seasons should be retired.

E. Avoid stepping on ropes.

F. Avoid exposing ropes to excessive sunlight.

G. Keep ropes clean by washing regularly.

H. Protect ropes and webbing from sharp edges.

I. Train students to check ropes for damage when coiling and stacking.

J. Keep a comprehensive record of each rope's use:

1. Type of use:
    a. Heavy: lowering on tension, leader-falls, rescue work, etc.
    b. Medium: top roping
    c. Light: ropes taken and not used, ropes used for ground school
2. Date and location of use
3. Number and severity of lead falls

K. Immediate retirement of ropes should be considered if they are subjected to severe stresses such as excessive abrasion or extreme forces such as a long leader fall.

L. Participants have or are provided with clothing and equipment necessary for safe completion of the activity.

M. Equipment manager and instructors will follow all UNH maintenance guidelines.

V. Belaying

A. The following knots and their uses should be taught:

1. Figure nine
2. Figure eight on a bight
3. Bowline
4. Munter hitch
5. Prussik
6. Overhand knot
7. Clove hitch
8. Girth hitch
9. Water knot
10. Klemheist

B. Students are instructed to check for and secure loose hair and clothing before climbing/belaying.

C. Belayer is secured by clipping into an anchor (if necessary) through the front of the harness, using a locking carabiner. This must be done through leg loops or secure tie-in point.

D. Belayer must use approved belay devices or techniques:

1. Stitch Plate
2. Figure eights
3. Petzl Gri-Gri's
4. Body belay
5. Tubers
6. ATCs
7. Munter hitch
8. Other approved devices

E. Belayers never remove rope from the brake hand.

F. Before climbing, the belayer and climber perform safety checks on themselves and on each other. This includes:

1. Helmets are on and secure.
2. Harness buckles are doubled back.
3. Climber and belayer are tied in correctly with figure-nine knot.
4. Pinch-test is performed on locking carabiners (anchor and belay device).

G. During climbing activities, the following commands are used:

1. Climber: "On belay?"—Is the belay on?
2. Belayer: "Belay on."—The belay is on.
3. Climber: "Belay off."—I am secured. You may dismantle the belay and prepare to climb.
4. Belayer: "Off belay."—The belay has been dismantled.[1]
5. Climber: "Up rope."—Please pull in all the slack in the rope.
6. Anyone: "ROCK!!" —Falling object, take cover, do not look up. Yelled repeatedly until ANY object that has been dislodged has stopped.
7. Anyone: "ROPE."—A rope is about to be dropped. Take cover. Wait for a response...
8. Anyone: "Clear."—You may drop your rope, the area is clear.
9. Either: "On rappel."—I am beginning to rappel.
10. Either: "Off rappel."—I am off the rope, you may begin rappelling.

VI. Descending (Rappelling):

A. Rappel device is approved by the instructor (see also Section V).

B. Rappel device is attached to the harness using a locking carabiner clipped through the waist belt and leg loops or secure tie-in point.

C. Students are instructed to check for and secure loose hair and clothing before beginning to rappel.

D. Situational appropriate backup belays used on all rappels include but are not limited to:

1. Prussik brake
2. Ascenders
3. External belay

E. An appropriate knot is tied into the end of the rope (possibly a figure eight) to prevent rappelling off the end of the rope.

VII. Anchors

A. Natural anchors:

1. Large well-rooted live trees at least 6 inches in diameter.
2. Large immobile boulder or other secure rock protrusion.

B. Artificial anchors:

1. Anchor must be S.R.E.N.E.:

a. Solid
b. Redundant
c. Equalized
d. Non-Extending

[1] Note: The commands of "On belay" and "Belay off" are in this syllabic order so that they may be understood and distinguished from one another in situations in which hearing may be difficult. For example, it is much easier to hear someone yelling "WAH-WAHWAH"(On belay) and "WAHWAH-WAH" (Belay off) in high winds, than trying to distinguish something that has the same syllabic pattern, i.e., "WAH-WAHWAH" (On belay) from "WAH-WAHWAH" (Off belay).

2. Minimum of two solid protection placements.
3. Angles formed by slings at tie-in point should be less than 90 degrees.

VIII. Climbing Site Management

A. Safety:

1. Helmets must be worn by all instructors and participants while on the climb and in the rock fall zone at the climb site.
2. Students must be clipped into an established anchor when they are closer than 6 feet from the edge of the cliff.
3. Student-to-instructor ratio must not exceed a safe limit.
4. Students perform appropriate warm-up exercises prior to climbing. These may include but are not limited to:
    a. stretching
    b. bouldering
    c. cardiovascular work
    d. visualization and meditation
5. Program staff comply with management policies and protocols of relevant climb site (see UNH Site Management Policies for appropriate information).
6. Program staff are aware of any relevant physical or psychological conditions that have been disclosed by participants through appropriate medical and release forms, as well as those that may develop due to the extreme nature and stress of lead climbing.
7. Instructors are aware of environmental conditions (e.g., weather, rock fall, route conditions) and take appropriate preventative safety measures.

LEAD CLIMBING

Boojum Institute for Experiential Education

Lead Rock Climbing

NOTE: This category applies only to Boojum Institute Rock Climbing Programs.

GENERAL

Lead Climbing is when the leader/guide moves first up a climb, sets adequate protection, installs a solid and comfortable belay, then belays the second/client up to them while coaching and giving direction if needed.

MANDATORY INSTRUCTOR/GUIDE SKILLS

All the skills listed under this category in Bouldering, Top Roping, and Rappelling.

Rescue Skills

Tying off and escaping the belay
Raising, with mechanical advantage, 3:1 & 5:1
Lowering the client
Counterbalance rappelling
Tandem rappelling
Passing the knot while lowering

The Guide/Instructor can find a description of the above listed skills in: AMGA Manual (Association of American Mountain Guides) sections 2.6, 2.7, 2.8, 2.9

Recommended Reading

AMGA Manual, Section 3, The Art of Guiding

3.1 On Being a Guide
3.2 First The Client
3.3 Guide Client Relationship
3.4 Route Selection and Planning
3.5 Time Management
3.7 Client Evaluation
3.12 Environmental Consciousness

HUMAN UNDERSTANDING AND EDUCATIONAL GOALS

Note for the guide

Remember that clients come with different goals for following lead climbs: Some want to learn to lead and some don't. Make sure you ask about the client's goals early in the course so that you can tailor the curriculum for their needs.

- For the student to gain an advanced climbing experience that initially demonstrates lead climbing and multi-pitch climbing to be a fun, efficient, and demanding event that includes the client's self responsibility.
- Refer to AMGA Manual section 4.2

WHEN LEAD CLIMBING IS APPROPRIATE

Guide/Instructor

- When the staff have demonstrated proficiency of the skills listed above to the satisfaction of the Climbing Program Manager.
- When the guide-to-client ratio is not more than 1:1 for beginning students, 1:2 for intermediate and advanced.
- When the weather is acceptable OR if the most prudent option in diminishing conditions is to continue.

Clients/Students

- May participate in mock leading when the program curriculum prerequisites have been met, i.e., they have completed the advanced rock skills course or possesses equivalent skills.
- May participate in real lead climbing when the following prerequisites have been met:
  1. The client has completed the Advanced rock skills course or possesses equivalent skills.
  2. The client demonstrates solid and efficient protection placement and anchor building skills.
  3. The guide selects a good first lead based on gear placements/bolts, "clean" falls, and no ground fall potential.
  4. The client demonstrates a "perfect" mock lead on the route that he/she is going to lead.
  5. The route is well within the climbing ability of the client.
  6. The Guide/Instructor genuinely feels that the client's risk management skills are equal to the risks involved.

Conducting Lead Climbing in Diminished Conditions

Lead climbing in adverse weather may be necessary when the team is engaged in a multi-pitch climbing situation and weather rolls in quickly. This is the area where experience and judgment are directly related to Guide performance and risk management. The best option (to continue or retreat) must be decided by the Guide. The Guide should take into account actual risk, severity of the weather conditions, terrain, and the stamina of the entire party.

WHEN LEAD CLIMBING IS NOT APPROPRIATE

- When one of the above criteria is not met.
- When adverse weather is evident prior to starting a lead climb.
- When the route is too difficult for the clients to follow.
- Also consider the physical and mental ability of the student in relation to:

  The terrain Consider the height, exposure, available protection, and quality of the climb. Can you find another site that will allow better facilitation of risk management?

  Adverse weather Are the students going to be cold or hot? Will it impair their performance to the point of presenting an unacceptable risk? Being uncomfortable can affect their performance in relation to risk management and the quality of experience, especially for less experienced climbers.

STAFF GUIDELINES AND WHERE TO FIND MORE INFORMATION ON HOW TO LEAD CLIMB WITH CLIENTS

It is advised that you teach or review spotting techniques early in the day and remind clients that it may be necessary to spot in some situations.

MULTI-PITCH LEADING WITH ONE OR TWO CLIENTS

Guiding the Client

In the guiding situation, the client is there to complete the route and to have a good time with the entire experience. Your role as a guide is to provide the experience while being efficient and managing the risks. This means climbing efficiently and using the appropriate tools to fit the terrain. Guiding and the tools you use to guide are dependent on the terrain. For example, on one pitch you may belay clients individually; if the next pitch is easier, you may choose to belay the clients together on separate ropes (faster). Given the clients' ability and the difficulty of terrain, Simul-Belaying, Standard Belaying, Short Pitching, and Short Roping are all tools that can increase your efficiency when applied correctly.

Instructing the Client

In this case, your role modeling affects the client more. While leading pitches, climb slowly and put in more gear, role modeling the techniques they should use in their climbing future. At the belays, take the time to discuss how you led the pitch as well as how and why you set up the belay where you did.

Where to find additional information about lead climbing:

Rescue skills:

- NOLS Climbing Instructor Notebook chapters 15,16,17,18
- ACMG Manual (Association of Canadian Mountain Guides) chapter 5

EMERGENCY PROCEDURES

Concerns

Where are you doing this? Are you familiar with the terrain? If not, are you qualified to guide in this terrain? What is the ratio of staff to clients? Is it within our limit?

Prevention

Spotting.

What To Do

See additional resource chapters listed under Mandatory Skills & Guidelines.

EQUIPMENT CONCERNS

While leading multi-pitch climbing, the guide should always carry an adequate amount of guiding equipment. This includes but is not limited to:

- 5 locking pear shaped carabiners.
- 5 foot 5-6 mm cord (reserved for rescue)
- One 6 foot 7 mm cordellete (reserved for rescue)

Guides' Lead Ropes Standard of Care

Purchase

- The rope needs to be UIAA single rated.
- Make sure the rope hasn't been sitting around the shop for a year.

Maintenance

- Keep your rope clean and free from dirt; wash it when necessary.
- Insist that clients do not step on your lead rope.
- Store your rope in a cool, dry place.
- If you're using a rope to guide at Boojum, don't lend it to other people.

Replacement

- Every time you climb, check your ropes for wear spots in the sheath as well as for soft spots in the core. Don't be afraid to retire your rope because of expense.

The Climbing Rack

Bring plenty of it! Choose your route, and plan as close to the perfect rack as possible.

Bring some gear to leave just in case you need to build up rappers, for example:

2 rappel rings

15 feet of 9/16" webbing

Old stoppers, hexes

Additional Gear

- First Aid kit
- Emergency call guide and some change to call, as listed in Guide's Log Book
- Knife, to cut off old webbing if needed
- Business cards

National Outdoor Leadership School

Multi-Pitch Climbing

Andy Tyson

At NOLS, we teach traditional multi-pitch climbing, where we lace our own gear and build our own anchors, to give students a comprehensive introduction to the world of climbing. Multi-pitch climbing puts all of climbing's components, including rope handling, belaying, protection placement, anchor building, communication, movement skills, and teamwork into action. Most students will not be ready to go multi-pitch climbing on their own by the end of their course, but they should have a good idea of the system, their abilities, and their learning needs in this exciting form of climbing.

Sometime during a climbing camp or mountaineering course, most students are ready for their first multi-pitch ascent. No matter how well you prepare them for this, the students' learning curve will be very high. This is unfamiliar territory; they may not be aware of safety concerns, and they will need lots of coaching on the recently learned climbing systems. This chapter is meant to offer ideas on how to better manage early multi-pitch climbs with students and includes what students need to know before the climb, how to select a team and match it to a climb, how to manage the students, and some thoughts on curriculum during the climb.

Students need to be prepared for an ambitious activity like this one. Going multi-pitch climbing lets students experience another aspect of climbing, see the reasons for honing their basic skills, and participate in a fun and challenging adventure. First multi-pitch climbs are both a guided experience for the student and one in which they are expected to think and act for themselves. For an instructor, first time multi-pitching may feel like guiding, but remember, it should be primarily a learning experience for the students. The more they learn the first time, the easier it will be for all on subsequent climbs. To better prepare students, most instructors take students on a mock multi-pitch climb on low angle terrain, where their comfort level is high and they have a chance to truly practice what they need to know. In many cases, a first multi-pitch that is third or fourth class is a great way to emphasize learning the system.

WHAT SHOULD THEY KNOW FIRST?

Multi-pitch climbs happen after the students have spent several days on the basics: knots, rope handling, belaying, movement, and top roping. Rappelling is a necessary retreat and descent skill that should be covered before the climb as well. Protection placement and anchor building are usually taught beforehand and are especially useful for those who must clean gear, but a full blown class is not mandatory. However, make sure students practice removing gear and using a cleaning tool before the climb; also remember to place easily removable gear if possible during the climb. These skills are enough to prepare most students for their first multi-pitch experience. Remember, however, that since the students have only basic rope system skills, the instructor must be prepared to do lots of coaching and the students will not be much help if anything goes awry.

It is routine at NOLS to demonstrate a mock multi-pitch to students before expecting them to understand the same routine on a big wall. This demonstration can happen on a short wall, a boulder, horizontally from tree to tree, or in any manner that allows students an easy view of the different "belay ledges."

Perhaps your most difficult task as an instructor is to ascertain what your students are and are not capable of doing. If they know nothing about rescue, you had better make sure you do not need to be

rescued yourself. If some of them are not absolutely dependable, perhaps they shouldn't be asked to manage a rope system alone on a ledge. If one of them is extremely reliable and confident, perhaps s/he should be given an informal leadership role by discretely asking her/him to keep a close eye on things when the instructor is out of view.

Should students already know basic rescue? In the ideal world, yes. In reality, I find the basic belaying and climbing skills are enough for students without adding rescue to the package. In order to keep interest and energy levels high for both instructors and students, it makes sense to get up on the rock without overwhelming them with theoretical situations. If you can show them the reasons they need rescue skills during a multi-pitch climb, they may be more inspired to pay attention when the class is taught.

Instructors must manage the experience of guided climbs in terms of safety. Climbs must be selected to allow students to learn (e.g., have time to fumble with a knot, have time for rope management and belay organization, and have a few pitches of climbing within their ability). Such climbs should allow the instructor to be well within his or her limits and have time to teach and coach while in control of safety issues.

When choosing a route and team, consider that it will take a fair bit of time to get students oriented and keep them organized. Select students who are motivated and who work well together. I will describe a multi-pitch system that involves four total people. *[A 5th class multi-pitch climb on a NOLS course should not involve more than five or fewer than two people.—editor]* It is possible to have the students help each other by combining a strongly skilled student with a less attentive or less skilled student. Make sure you select at least one student as a leader who will do a good job belaying you. Consider the students you are taking, and select a route that is well within their abilities. Remember to take into account the greater exposure they will experience. They may learn more on a climb that is less difficult or aesthetic and feels more protected. In the backcountry, knowledge of the approach, route, and descent is very helpful for first multi-pitches; consider doing some scouting with one or two of your team members the night before. Wherever you are, select a route of conservative difficulty, and obtain descent information before the climb. Set up freak times (a time to start a rescue if you haven't returned) and contingency plans with other instructors before you go.

DURING THE CLIMBING DAY

On the way to the base of the route, I describe the plan for the day. Some things I cover: What to take on the climb and how many packs we will take *[I expect multi-pitch teams to have at least first aid items such as tape and gauze, two ropes, one cordelette and biner per person, warm clothes, and water. -editor]* , what order they will be in, what each of their specific responsibilities will be, and how many pitches there may be, how we anticipate getting down. I point out the route if possible. As we are organizing gear at the base of the climb, I mention time concerns and ask folks to be as efficient as possible. I also give my partners jobs: stacking ropes, placing a bottom anchor (a great teachable moment), tying in, organizing packs, etc. This seems to help inevitable post approach relaxation.

At the base, I go through my mental list to make sure everyone is up to speed and ready. A few things I review: Each of us should be safely clipped in or on belay the entire climb; we should continue our good habit of checking each other both at the base of the route and on the ledges; signals must be accurate throughout the day; and gear should be passed forward to the second and then to me whenever possible. I review who will remove gear and how I will communicate which pieces to leave in to protect traverses; I demonstrate cleaning tool use; show how to keep gear organized and clipped in so it does not get dropped; and discuss when and how to clip through pieces.

On the first pitch, I wait patiently for all to gain the belay ledge and make sure everyone is comfortable, safe, and knows what is going on. Then I start out again. On the subsequent belays, I may have the second belay up the third and then have the second start belaying me while the third belays the fourth. In this case, it is important that the second and third realize they are also responsible for

making sure the fourth clips in (and that you as the leader trust the fourth's skills.) It is also important that the fourth passes any gear to the second when possible. Continue this system to the top or retreat ledge.

On the climb many things can be covered during teachable moments. For rope management, I show folks how to clip in under everyone on the anchor so that the ropes don't get out of order and tangled. Many instructors have each student clip in with their own locking biner to reduce confusion and the possibility that one student will accidentally unclip another. I also tell people where, how, and why to stack ropes (especially on foot, knee, or sling while belaying on a small ledge).

I make sure everyone is aware of the types and amount of gear that has been brought on the climb: slings, biners, rock pro, and ropes, in addition to first aid, warm clothes, food and water. I offer tips on removing and organizing gear during the climb. I try to alert folks tactfully to situations that can be avoided by getting better at the basics (communication problems, knot fumblings, etc.).

I often point out and explain my anchor and encourage questions about any gear they see or remove. I suggest "what if?" rescue scenarios to get them thinking and interested in learning rescue techniques.

I make sure folks check out the view and get good pictures of themselves! I encourage the students to teach each other where appropriate, such as pointing out where to clip in or explaining an anchor. And as always, I try to find the balance between teaching, overloading, and having fun safely.

Of course getting to the top is only halfway to safety. If it is a walk-off, let them know why you would rather walk down than rappel. If you need to rappel, continue the teaching.

AFTER THE CLIMB

On the walk down or after the rappels, clarify questions and give positive feedback—sort of a debrief of the day.

After a day of multi-pitching, students should have a good idea of the multi-pitch process, understand more about lead climbing and gear placement, have an idea what equipment is needed, have a reason to hone basic skills (so they are efficient and confident in the vertical), become interested in or have a reason to learn basic rescue, and be on their way to being excellent rope handlers.

People tend to let their guard down after a long day on a big wall. They often think the big hazards are behind them, and they may even act as if they are still on belay in negotiating hazards. This is a very important time to be sure folks take water breaks and scramble down those third class approach routes carefully.

The four person multi-pitch scenario described below is one way to conduct students safely through the experience. I used this system to describe the initial student skills necessary for a first multi-pitch, choosing a team and route, teachable moments on the climb, and desired outcomes. There are, however, variations to this setup that are also safe and productive.

EXPLAINING THE CLIMB TO THE STUDENTS

The leader leads the pitch placing pro about every 10 feet. The leader thinks about partners and where gear may be useful in order to keep them on the route and protect them in case they fall. The leader communicates which pieces for the 2nd to leave and why. At the top of the pitch, the leader establishes an anchor for all, yells "belay off," then prepares to put the second on belay.

Once on belay, the 2nd climbs the pitch and cleans protection, making sure to keep the gear clipped in and somewhat organized. I usually leave the cleaning tool with the last climber, as he or she must clean the anchors. If the second cannot get a piece out, the last climber can get it. The second leaves key pieces in place as instructed by the leader and clips through them. At the top, they must clip in at the belay station and then begin belaying the 3rd.

At this point, the leader will gather gear from the second, re-rack, then re-stack the lead rope.

The third climbs the pitch and clips through any pieces on the route. Once at the belay ledge, they clip in to the anchor and put the fourth on belay.

If the start is on the ground, the fourth can remove the first anchor anytime after the first lead is completed. On subsequent pitches, the fourth must not remove the anchor or untie from it until put on belay. Then the fourth climbs the pitch and removes all remaining gear (be sure they know what a fixed piece is, or you will be waiting hours while they try to remove that piton!) At the belay, they clip in then help the third re-stack the other two ropes.

The Venture Program at University of North Carolina

Caving

A. PURPOSE

1. To provide the unique challenge of adjusting to dark, close underground environments.

B. STAFF RESPONSIBILITIES

1. Proper prior planning is necessary for a caving trip, due to the fragile environment and unfamiliar terrain into which the participants will enter.
2. Staff should carry the following equipment in their packs or on their persons when caving: extra hat, and water and food that they can share with participants if needed.
3. Instructors must have a working knowledge of the cave system in which the workshop is to take place, including places where spotting is needed (e.g., the "Over and Under" in Grindstaff), places where extra caution is needed (e.g., going around "The Pit" in Grindstaff), places where a hand line is necessary, and places that should be avoided altogether (e.g., the top of the "Window Pit" in Grindstaff).
4. Check the medical forms to see if there is anyone with a history of claustrophobia; anticipate problems they may have in traveling through tight crawls. Monitor the participants while caving, looking for signs of discomfort.
5. ***Keep track of participants. Conduct head-count at major junctions. Consider implementing a buddy system.**
6. Don't lead or guide the group through the cave. Allow them to experience the thrill of being a scout/explorer. However, one staff should stay close enough to the front to monitor the lead.

C. SAFETY CONCERNS

1. The Stokes litter and a climbing rope will be available for emergencies (usually it is best to store them in the van).
2. ***There must be three sources of light per person (carbide, flashlight, candles).**
3. ***A first aid kit will be carried in the cave.**
4. ***Helmets will be worn by all participants while exploring the cave. Helmets may be removed when resting in large rooms.**
5. ***Never travel with fewer than four people in a group.**

6. Instruct participants in the use of carbide lamps before entering the cave.

7. Mention methods of travel in a cave: walking, crawling, sliding, and land climbing.

8. Emphasize accident prevention: An underground evacuation is much more difficult than a backpacking evacuation. Teach and demonstrate spotting if appropriate.

9. Warn about the possibility of dangerous passages: breakdown, flooding, pits, loose rocks, slippery surfaces, etc.

10. ***Participants must be instructed in recognition, symptoms, and treatment of hypothermia before entering cave. Instructors must ensure that all participants have appropriate clothes. Extra dry clothes should be available.**

11. Teach techniques to avoid getting lost: name your own landmarks; remember climbs, turns, etc.; look in all directions—up, down, left, right; look behind you—things look different on the way out.

12. Cavers should stay together in groups no smaller than 4 (except when doing in-place solos.) Generally, one staff should be with each group.

13. If a group is lost, have a group discussion to examine options: trying to get back to last place definitely recognized, staying in one place and waiting for help, and/or banging on rocks to attract help from others in the cave. It may be appropriate to teach methods of search and rescue.

14. ***Do not change Coleman lantern mantles in the cave; during the first lighting, they give off toxic fumes. Light new mantles outside the cave.**

15. If setting up camp in a cave, light Coleman lantern, and have participants turn off lamps, in order to conserve carbide and to prevent people from working with stove fuel while wearing a carbide lamp.

16. Make knee pads available to cavers.

D. TEACHING OUTLINE

1. Safety:

   a. Discuss safety issues from above as appropriate.

2. Geology and life in the cave

   a. Formation of particular caves:

      i. Vadose—created by the mechanical force of moving water

      ii. Phreatic—created by the chemical solution of lime-stone: calcite ($CaCO_3$), which is formed by deposition of sea shells, is dissolved by carbonic acid (H_2CO_3), formed by ground water and decomposing plant life, yielding CO_2.

      iii. Formation growth (speleothems)—The opposite of cave formation: created when carbonic acid containing calcite acid in solution hits air in passages; CO_2 dissipates, depositing calcite into stalagmites, stalactites, soda straws, and draperies. Speleothems form very slowly; take great care not to destroy them.

      iv. Cave flora and fauna.

3. Conservation

   a. ***Present-day ethics mandate carrying out all waste, including spent carbide and solid human waste.**

   b. Vandalism, such as graffiti and/or the destruction of speleothems, will not be tolerated.

   c. In winter months, bats are in hibernation. Disturbing a bat in this stage can kill it, as there is not sufficient food to sustain it through the winter once it has awakened. Therefore, it is important not to touch bats or warm them with carbide lamp flame.

   d. Touching formations may interfere with their growth processes.

   e. Avoid dropping particles of food and carbide in cave.

4. Public relations:

   a. Do not dump or bury used carbide inside or outside a cave.

   b. Do not pass by people's houses late at night.

   c. Make sure that vehicles are parked in the proper place.

River Crossing

National Outdoor Leadership School

River Crossings

Early season travel in the Wind Rivers is often challenging due to the high water volume of rivers and streams caused by melting snow. Mountain travel requires the ability to judge moving water hazards and execute safe river crossings.

EDUCATIONAL GOALS

Students need the judgment and skills necessary to cross moving water without supervision. They should be able to recognize and assess river hazards; they should know when dry crossings are appropriate and when it is better to wade; and they should be able and willing to decide not to cross a river if conditions are too difficult.

KEY POINTS

River Features

Study the river. Current—or the speed of the river—is determined by volume, depth, and width. As a river widens, the current lessens. As the river gradient lessens, the current eases off. Narrow channels can have faster water.

An eddy is a slow spot in the current, formed behind obstructions. It is sometimes possible to eddy hop—or move from one eddy to another—to avoid having to tackle the main current for extended periods of time.

The deeper the water, the slower the current must be to wade. Visibility can help you determine how deep a crossing will be. In general, visibility declines with depth. If you cannot see the bottom, chances are the river is too deep to wade. Surface texture also provides a clue to water depth. Deep water is glassy and masks the river bottom. Foaming rapids occur where the water is shallow, the gradient is steep, or where there are boulders and other obstacles along the river bottom.

To gauge water speed, throw a stick into the main current, and walk next to it on the bank. In thigh-deep water, most people cannot cross if the current is moving faster than they can walk. Because a backpack increases your surface area and catches more of the power of the current, wearing a pack will further inhibit your ability to cross deep moving water.

Springtime often raises the river to flood levels and increases the chance of logs and debris washing downstream. The likelihood of coming upon strainers—or trees and logs lying partially on the bank and partially in water—also increases in flood stage. Strainers trap objects that wash down with the current. A person who gets caught in a strainer can be pulled under and pinned against the branches that extend down into the water.

In the mountains, water levels rise as the day gets warmer and snow melts, and then drop back to their diurnal low between sundown and sunrise, when melting slows. You can expect a mountain river fed by snowmelt to come up quickly when the weather gets warmer. Temperature increases also weaken snow bridges across rivers.

The river bottom plays an important part in deciding where to cross. The chance of getting a foot trapped or having a wader trip increases with the size of the rocks on the bottom. Sand often covers rocks and logs in slow moving water and makes crossing easier.

Water plunging down a steep gradient is likely to be fast and tumble rocks along the bottom. Listen for these potential ankle breakers washing down before stepping in to cross.

For entrances and exits, look for river banks without undercuts, overhanging vegetation, or steep slopes. Consider what would happen if you fell and got swept downstream. Bad washout zones include waterfalls, strainers, rapids, and low-hung snow bridges.

Scouting

Take time to find a good place to cross. Examine the map to see how large or steep an area the river is draining. A river draining a south-facing alpine basin or glacier may have more flow than a shaded north-facing one. Maps can also give you clues about gradient, river width, tributary locations, and wooded areas. Use high ground to survey large sections of the river.

You may need to scout a long way up or downstream in search of a shallow, wide place where the current is manageable. Consider crossing the river's tributaries or feeder streams, where the water volume will be less.

Crossing Techniques

River crossings can be divided into two basic types: dry and wet. Dry crossings include logs, rocks, log jams, and other natural bridges. Wet crossings mean wading.

Your students need to understand the consequences of a slip before crossing. Ask them what would happen if they fell? Will it result in a wet foot? Lost equipment? A broken bone? Or a drowning?

Less-able group members may need help with their loads. Consider using the stronger and longer-legged people to shuttle packs across. Ultimately, however, everyone needs to feel comfortable about the site before you commit your entire group to the crossing.

Dry Crossings

Crossing on logs or rocks, or using the high step technique, preserves dry feet but often requires balance, agility, and luck. Failure to execute these maneuvers properly is more likely to cause injuries than a carefully thought-out and well-executed wade.

Fallen trees and log jams can be used as bridges. Choose logs that are stable, broad, and dry. Avoid crossing on thin, slippery, or inclined trees. Consider setting up a hand line to aid balance. Place the line at shoulder height and off to the side, so that it does not interfere with packs or walking. Examine the consequences of falling off the log on the upstream side. The log may be a strainer.

Log jams are tempting foot bridges, but unless they consist of large, well-anchored trees that span the entire river, view them with suspicion. The entire pile may be held in place by one or two key logs that may shift or release if someone walks on them. This can be especially dangerous when they are in the main current. If the jam shifts or moves, find another place to cross. A hiker who falls through these floaters can be pinned by the current.

Crossing on rocks is another option. But before you start jumping from rock to rock, rehearse your sequence of hops and steps in your mind. Try to connect dry, flat and closely-spaced rocks. Have your

students imagine that the rocks are coated with ice, so they place their feet on them delicately. Smooth, continual movement facilitates balance.

If you fall when rock hopping, you can bash yourself or even drown. Knee injuries may occur when the leading foot slips and the momentum of the leap continues to carry your knee forward onto the rock. Use a stick or a long fly rod case to provide balance while stepping from one rock to the next. This often reduces the need to leap, allowing more secure and balanced movements. And remember, we do not encourage boulder hopping with heavy packs on dry land; therefore, we should not promote leaps onto the slippery and rounded surfaces found on river boulders.

Finally, you can sometimes high step across streams and stay dry. High stepping is when people walk rapidly through the river without getting water in their gaiters. If you use this method, the river bottom should be smooth and the distance short, since it is easy to trip.

Wet Crossings

Practice and familiarity with challenging wading conditions is important. Get your students out in the river without their packs, trying different techniques so they recognize the strengths and limitations of each crossing method before they have to use them. Have them try using a stout stick or the arm of another group member for added balance. Get them to feel the force of moving water so they respect its power.

Redistribute loads to avoid top heaviness. Face upstream so the current won't buckle your knees. Avoid staring at the river; moving water can mesmerize you and interfere with your balance. Choose a line that angles downstream if you want to fight the current less.

Wade in boots to provide adequate ankle support. Remove your socks, insoles, and gaiters, then lace the boots up tightly for support and security. If you are wearing plastic boots and plan to wade in just the shells, you'll need to keep your gaiters on. Gaiters help prevent the boot shells from washing off your feet. Sometimes it is helpful to wear socks to pad your feet and make the boots fit more securely.

For deep crossings, consider removing wind pants and long underwear so there is less drag against your legs. Clothing can balloon up with water, making it difficult to move. Make sure all loose items are secured inside your pack. Keep your hands free, and avoid dangling things around your neck. Loose items will be the first thing to disappear if you fall in.

Consider practicing your crossing positions on dry land or in slow, shallow water. Keep your feet shoulder-width apart, and avoid crossing them when you walk. Use each foot to feel for solid footing before weighting it, and commit carefully to each step.

Have the largest, most experienced person or team test the current prior to committing the entire group. Test it without packs on; through the river without getting water in their gaiters. If the test group encounters trouble, consider wading elsewhere. Post spotters downstream during the test and actual crossing to help swimmers out of the water. Spotters should stand along the river's edge where swimmers are likely to be carried.

When crossing mountain streams, hip belts and sternum straps should be unfastened, to make it easier to remove the pack if someone should fall. There are situations where leaving hip belts fastened may be acceptable. These situations require experience and judgment to determine, however. Most novice wilderness course students do not have enough experience to make such a call. Hip belts should be unfastened until students demonstrate competency crossing rivers. Judgment parameters can then be introduced if appropriate.

Balance is the main factor in deciding whether or not to have hip belts fastened. When performing dry crossings, balance and pack stability are integral to success. Redistributing weight in the pack to avoid top heaviness and/or keeping the hip belt fastened may be useful. But if a fall in this situation would result in being swept away or landing in deep water, the hip belt must be unfastened. In a wet crossing, you must turn and face upstream for balance; or, if the water is at or above your knees, then hip belts must be unfastened to allow you to get your pack off as quickly as possible in case you fall.

How Deep Can You Wade Safely?

- Ankle to mid-calf depths usually can be waded singly with a stick or with one other person for support.
- Mid-calf to mid-thigh depths should be waded with two others for support. Crossings become noticeably harder in water above the knees.
- Mid-thigh to waist-deep wading becomes even more difficult because any current tends to buoy up the waders, especially if the current hits backpacks. Seriously consider finding a better place to wade.
- Avoid moving water above waist deep. Find or build a dry crossing, or, better yet, change your route.

Wading Techniques

When crossing on your own, face the current, and use a stick as the third point of a tripod. Also:

- Move perpendicularly or diagonally across the current.
- Move one point at a time.
- Use the stick to probe for holes.
- Shuffle across in small steps; keeping the stick in front of you.
- Keep moving. Hanging out in the hard parts wastes energy and increases risks.

Crossing in a team lends more stability than crossing alone. There are a several methods to use. Experiment to determine the conditions suitable for each technique.

One team method uses two or three people to cross the river in a line parallel to the current.

- Face the current. The first person wades with a stick. The others line up behind her/him, each grasping the person in front of her/him securely.
- The first person breaks the current and creates an eddy in which the second and third stand. Those in back hold the first person down so the current does not push her over.
- The group moves in small steps together. They work as a tight unit until out of the river.

The group pole method uses a long pole to provide stability.

- Three to 10 people hold a long, strong pole in front of them.
- Grip the pole firmly for more stability.
- Use bigger teams for more support.
- Face upstream, and move as a team across the current.
- Get the entire group on land before you release the pole.

Another team method involves having two to four people cross together in a line across the current.

- Face upstream. Hold hands or grab the packs on either side of you.
- Take small steps, but try to maintain a steady speed.
- This method is not as stable as other team positions, but it does work well when only one person is exposed to the faster, trickier sections at a time. In this situation, the others can support that individual from more secure stances.

River Swimming

If you fall and find yourself in the river at the mercy of the current, ditch your pack immediately and start floating. Lie on your back with your feet out in front of you. This position allows you to see where you are going and lets your legs absorb shock and your feet deflect rocks. Avoid standing up in swift currents. Foot entrapment can occur in as little as 1 to 2 feet of water. Wait until you are in a slow, shallow area next to the bank before standing.

TEACHING CONSIDERATIONS

River crossings are one of the most hazardous activities in wilderness. It can be hard to instill a respect for the forces involved when a person has not felt the impact of water pushing against his legs while wearing a heavy pack. Make sure you know everyone's swimming ability before teaching river crossings.

Even though this subject is strongly governed by common sense, do not assume your students automatically understand the seriousness of moving water. Start talking about river crossings as soon as you encounter a fordable stream. Get them used to having wet boots. John Gookin provides his students with lots of practice in difficult water. He finds that people improve their skills and confidence after spending time crossing water that challenges their abilities. Alert spotters, as well as a safe washout zone, are mandatory for this activity.

Teach river scouting and crossing organization at the same time. Give your students the criteria for choosing a crossing, send them off to find an appropriate spot, and finish by discussing the merits of their recommendations. This is an appropriate time for the instructors to share their judgment with the group. Make it clear why a particular crossing and method are used or not used.

Model safe crossing techniques, especially for rocks and log crossings, and remember what may be easy for you is often difficult for novices.

Let students know that the whole group must be comfortable with a crossing. Strict time schedules may lead students to rush, pressure them into a bad crossing, or prevent them from doing adequate scouting. Communicate expectations that promote wise student decisions—decisions that include choosing not to cross.

In a low water year or late in the season, courses may not get a chance to wade rivers that are exciting and educational. Instructors have been able to teach crossing techniques and water safety by practicing wading at the outlets and inlets of lakes. Consider practice wades without packs if you believe the group needs more experience.

LEADERSHIP OPPORTUNITIES

River crossings demand good teamwork and organization. Find a practice site that is appropriate for solo crossings as well as one that will challenge people and force them to work together.

A Proposed River Crossing Rating and Assessment System

by Jed Williamson

While this system is based on my 35 years of mountaineering experience, which includes hundreds of river crossings under all conditions in many geographic locations, I fully appreciate that you may, and SHOULD say, " Big deal!" That's why it is called "proposed," because I couldn't find any such system anywhere. And why did I engage in this exercise? Because there have been many river incidents in adventure programs, some of them resulting in fatality, and misjudgement of the conditions has been a key factor. If you have never seen river crossing and navigation in remote corners of places such as Pakistan, India, and Borneo by the "natives," I assure you that you would be astounded. And I would have to bet that THEY don't have a codified system, either. Just experience and pure necessity. As we do this kind of thing just for the experience or to get to an objective, we need to think about it a bit.

This rating is according to the following factors and description of various possibilities.

Stream/river physical and human factors include but are not be limited to:

1. width
2. depth (average and specific)
3. velocity
4. volume (CFS)
5. color (clear, translucent, or opaque)
6. bottom composition
7. obstacles (large boulders, sweepers, etc.)
8. configuration (location and number of bends and eddies)
9. time of day
10. weather history and current weather
11. water temperature
12. aids for crossing (ropes, poles)
13. technique used
14. skill level and strength of the participants
15. attitude of participants

Using the following continuum, we can put in the factors that determine how to categorize the crossing accordingly:

Easy .....Moderate .....Difficult.....Very Difficult .....Extremely Difficult

Easy: Late summer, when the water level is ankle to shin deep. Clear.

Moderate: Early summer, early morning, when the runoff from snowmelt is reduced by lower night temperatures. Bottom composition: various sizes of rocks and boulders, none bigger than a soccer ball, 50%–75% coverage. Water depth shin- to knee-deep. Clear.

Difficult: Early summer, midday to mid-afternoon, when the runoff is beginning to increase as daytime temperatures rise. Water depth: knee-high or just below. Water velocity: 4–6 knots. Clear to translucent.

Very Difficult: Early summer, late afternoon, when snowmelt is at its peak. Water depth: above knees. Bottom composition: various sizes of rocks/boulders. Water velocity 5 to 7 knots. Clear to opaque.

Extremely Difficult: Spring and early summer: late afternoon, assuming a melting snowpack and/or combined with rain storms and rising temperatures. Water depth: above knees. Bottom composition: various sizes of rocks/boulders, including large rocks between which one's boot could get wedged. Water velocity: 7 knots and above. Generally opaque (gray/brown from turbulence).

MOUNTAINEERING/MOUNTAIN SNOW AND GLACIER TRAVEL

Prescott College

Alpine Mountaineering and Ski Mountaineering

All Prescott College information written by the faculty of the Adventure Education Program at Prescott College. Edited by Steven Page and Lorayne Meltzer.

MINIMUM STAFF TO STUDENT RATIOS ARE

a. 1:6 for alpine mountaineering, ski mountaineering, or basic backcountry skiing.

b. 1:8 for advanced level backcountry skiing courses.

c. 1:10 for cross country skiing or non-remote ski touring. Non-remote is defined as within 2 miles or 1 hour from local emergency services.

GENERAL GUIDELINES

1. UIAA approved helmets should be worn in all situations where a fall would be likely to result in injury and where there may be danger of objects falling from above.
2. Extra clothing, storm gear, a light source (i.e., headlamps), extra food and water, basic first aid kit, and other appropriate survival gear deemed necessary due to local conditions should be carried on all alpine peak ascents.
3. Mountaineering involves assessment of a whole host of environmental hazards. These should be thoroughly discussed with students before they are encountered. Consideration should be given to: cold and heat stress, high altitude ailments and hazards related to lightning, avalanche, icefall and rockfall.
4. Students should be taught procedures for safe travel in areas of potential rockfall hazard. These should include: traversing, close group travel, one at a time, and dividing into small groups.
5. Students should be instructed to use the call "Rock" to warn others of dislodged rock or debris.
6. Prior to travel into mountains, the instructor should schedule some rock climbing at a local crag in order to gain knowledge of individual skill levels and technical preparation.

SNOW CLIMBING GUIDELINES

1. A thorough snow school, which includes instruction and practice in "self-arrest," should precede travel on hard inclined snow slopes or slopes on which shallow soft snow overlies hard snow or ice.
2. Snow school should be run in a suitable area where there is a good run-out or where bomb-proof J-line anchors can be established.
3. Students should wear helmets and protective clothing while practicing "self-arrest."
4. The instructor should emphasize the changing nature of snow and the implications this has to managing risks during this activity.
5. Roped team climbing (where anchors are not employed) should be conducted only on terrain where a sliding fall can be easily arrested. Otherwise, running belay anchors or pitched climbing should be used.
6. When roped team climbing is called for, emphasis should be placed on avoiding stack build-up between team members. No more than a single butterfly or coil should be carried as a means of preventing being towed or jerked by the differences in pace.
7. Crampons, ropes, and anchors should be used in icy or hard snow slopes where a self arrest is unreliable.
8. Dark and highly protective sunglasses should be worn on glaciers and snow fields to prevent snow blindness. A spare pair should be carried in case of loss or damage.
9. Glissading techniques should be practiced at a snow school site prior to actual use in mountaineering. Glissading is rarely safer than simply stepping down. The instructor should evaluate the potential hazards vs. the benefits of each. Expedience may be an important safety factor, or it may not. The run-out, snow conditions, and terrain obstacles should be considered carefully. Crampons should be removed before glissading.

GLACIER TRAVEL GUIDE

1. Ropes should be used while traveling on glaciers if the glacier is covered with snow.
2. A thorough training session on crevasse rescue should be conducted prior to glacier travel.
3. Prussik slings, carabiners, snow and ice anchors, and pulleys should be readily available when traveling on hazardous glaciers. Prussik slings can be pre-rigged on ropes for added efficiency.
4. Groups should avoid clustering in areas of potential hidden crevasse hazard. All group congregation areas and camps should be thoroughly evaluated and/or probed for hidden crevasses.
5. Particular care should be taken when traveling on a glacier after a new snowfall, when the weak, unconsolidated snow may hide openings. Careful probing with an ice axe or probe pole should be taught and employed. Climbers should be tied in when these conditions prevail.

6. Complex routes through crevassed areas should be marked with flagged wands to help aid on the return trip or retreat. When spacing wands, consider the possibility of storm or white-out conditions.
7. Snow bridge crossings should be belayed carefully. Crevasse rescue equipment should be ready for use.
8. Sufficient rope should be carried on glaciers to effect efficient crevasse extrications.

AVALANCHE HAZARD GUIDELINES

1. All pertinent guidelines previously recorded should be followed.
2. Students should be taught to identify avalanche paths and the zone of potential hazard and safety zones.
3. Special consideration should be given to teaching students about wet snow avalanches when in the mountains during spring, summer, or fall.
4. Safety zones should be identified, and camps and rest stops should be established accordingly.
5. In areas of potential avalanche hazard, procedures used for safe travel in avalanche terrain should be employed.

ALPINE ROCK GUIDELINES

1. Instructor should belay and use occasional anchors on fourth class terrain. Fixed lines (and prussiks), running belays, short roping, and pitched climbing should all be considered as possible techniques for additional safety on semi-technical areas (4th class and hazardous 3rd class).
2. Route finding should be strongly emphasized.
3. Particular care should be used to select sheltered belay stations.
4. Extra sling material should be carried for use in establishing anchors for unplanned retreats.
5. Rappel anchors should be evaluated very carefully. Pitons should be tested with a hammer, bolts carefully inspected, and threads and horns inspected and tested as well.
6. Backup rappel anchors should be added whenever indicated for all but the last person down.
7. When indicated, a separate rope belay and separate anchor should be employed to safeguard the first rappeller to descend.
8. Questionable rappel anchor slings should be replaced.
9. An instructor should rappel last if backup anchors are to be removed. In mountaineering situations where the terrain below is unknown, the instructor should rappel first, after checking the anchor that the last person should rap on.

ICE CLIMBING GUIDELINES

1. An equipment check and safety discussion should precede ice climbing activities.
2. Helmets should be worn by all students and staff members while climbing as well as while located below other climbers below steep or unstable ice.
3. Students should be instructed in safe use and care of ice climbing equipment.
4. Faculty should do all leading of ice climbs rated WI 3 or A1 3 and above.
5. Protective eyeglasses or goggles should be worn while climbing ice. Other protective clothing, as deemed suitable by the instructor in charge, should be worn.
6. A well equipped First aid kit should be carried or located in the proximity of ice climbing activities.
7. Faculty should make an effort to establish safety zones where students who are not climbing can congregate protected from falling debris.
8. Ice climbs that are in avalanche paths should not be used during times of high or extreme avalanche conditions.
9. Top ropes should have two reliable anchors.
10. No ice climbing should be done by students while unsupervised by the instructional staff.

WINTER BACKCOUNTRY SKIING AND SNOW TRAVEL GUIDELINES

1. All participants should carry avalanche transceivers in pre-tested working order when traveling in avalanche terrain.
2. The instructor should be responsible for indicating when everyone should turn on and off avalanche transceivers.
3. All students should be trained in the use of avalanche transceivers and should engage in avalanche rescue drills prior to traveling in avalanche terrain.
4. Ski touring parties traveling in avalanche country should carry an adequate number of snow rescue shovels (one per person for touring parties of four or smaller).
5. Standard travel, safety procedures, and terrain and stability analysis should be practiced by touring parties.
6. All ski touring instructors should have avalanche training at least as extensive as the A.A.I. Basic Level Course.
7. On tours involving remote or extended travel, touring parties should carry the following: a repair kit, a first aid kit, snow shovels, emergency bivouac equipment, food, and headlamps.
8. Ski touring proficiency should be developed or demonstrated before participants are allowed to carry heavy loads in backpacks while skiing.
9. Cold injury prevention, assessment, and first aid treatment should be a part of backcountry ski touring training.
10. A roadhead support vehicle should be utilized for backcountry ski activities.

11. The support vehicle should be equipped with the following: extra stove and fuel; sleeping bag(s); tow rope; chains; shovel (grain scoop); extra food; and shelter (tents or tarps).

12. When possible, an appropriate local contact should be informed of group itinerary and contingency plans.

13. A Mountain Smith sled, improvised snow litter, or SKED litter should be left in the van or taken into remote base camps to help in the event of emergency evacuation.

SOLOS

Camp Woodson

Solo

PURPOSE

To provide students with a period of solitude for personal reflection, introspection, and rest. This time can enable students to explore their degree of independence, self-sufficiency, patience, and stamina.

Safety Policy

1. Counselors should position themselves at the solo site in such a manner as to provide maximum security to the students from the public and from each other.
2. Solo areas must be approved by the Program Coordinator.
3. Solo areas near very swift-moving water or water over waist deep are not appropriate.
4. Counselors must draw a sketch map of the solo sites with the names of the students on it.
5. Students must be visually checked throughout the day (minimum of five checks per day, more when warranted).
6. Students must receive a minimum briefing that includes:
   a. the boundary of their area
   b. the location of at least one Counselor
   c. emergency procedures:
      - Hang a T-shirt at your tarp if you need to talk
      - Use your whistle if you have an emergency. Three short blasts at 1 minute intervals should be blown. The student should continue blowing until help arrives.

Guidelines

Use of the solo candle should be monitored closely. Candles must be lit by staff, and the flame must remain outside the tarp at all times. Students should be instructed to extinguish the flame before going to sleep. Staff should check each site an hour or so after lighting candles to ensure they are extinguished properly for the night.

TEACHING OUTLINE

Ensure students understand the goals and guidelines of solo and the consequences for breaking solo. Provide them with a good meal, a relaxed brief, and plenty of time for questions. Explain clearly what an "emergency" is and is not. Place students out of sight of each other and at a great enough distance so that normal noise (singing, etc.) cannot be heard by neighboring students.

Place students with behavioral problems and/or strong fears near a Counselor camp for close supervision. While we need not interact with students, we should be available to them and have a strong visual presence to them. Monitor sites frequently but without any established pattern (i.e., check students at 9 a.m. from the trail followed by a visit at 9:20 through the woods).

Assign projects, tasks, and writing assignments for solo as you see fit. Consider giving students the solo book individually after they have had a little time to get bored. Primary Counselors should write personalized questions in their solo book. Students with low writing and reading skills may need to have Counselors scribe the entries in their solo book. Consider activities such as drawing names to make someone a gift, finding or making a symbol that describes their experience, changing the tarp setup each day, washing and drying clothes, letter-writing, etc.

Take time to visit and talk with students, particularly your primary. The loneliness of solo may offer a unique opportunity to create rapport and friendship with a difficult student. Ensure adequate time for a thorough individual and group debriefing.

CHAPTER VI

Technical Skills—Water

PERSONAL FLOTATION DEVICES

University of New Hampshire

Outdoor Education
Personal Flotation Devices (PFDs) Policies

GENERAL

The UNH program staff and their assistants are aware that most boating fatalities are the result of not wearing appropriate PFDs. The program staff keep up-to-date with the changes in technology on the design and function of PFDs. Program staff are aware of rules and regulations in the use of PFDs. UNH uses the ACA Canoeing and Kayaking manual for this information.

ENVIRONMENTAL UNDERSTANDING

UNH uses U.S. Coast Guard approved Personal Flotation Devices (PFDs) Type III. Program staff know that these PFDs are appropriate for use during the instruction of flatwater and white water canoeing in two-person open canoes. Factors determining the type of PFD used are water and/or air temperature, currents, and/or the stream rate of flow, canoe size and kind, and the size and skill of the student.

CONDUCTING THE ACTIVITY

The UNH canoeing program meets appropriate standards set by the U.S. Coast Guard for Type III PFDs. Type III PFDs provide sufficient buoyancy for students in both flat and white water. Prior to use, PFDs are inspected to ensure that clasps and zippers are in adequate condition, that there are no tears in the cloth surrounding the flotation material, and that there are no signs of deterioration in the flotation material (i.e., missing, broken, crumbling). If any of these are present, the PFD is replaced. Staff enforce PFD guidelines by making sure students wear PFDs while:

1. in a boat
2. learning canoeing skills
3. practicing rescue drills

Program staff make sure students understand that PFDs are never used as cushions because this diminishes their buoyancy. The staff instruct students on the use of PFDs by:

1. teaching proper fit for effective flotation of the individual
2. showing students what to look for on damaged PFDs and to bring any to the attention of the instructor
3. teaching students the methods of swimming with a PFD

CLOTHING AND EQUIPMENT

PFDs used in the UNH canoeing program meet the standards set by the U.S. and Canadian coast guard. The UNH Program Staff follow appropriate guidelines for the care, maintenance, and replacement of PFDs as set by ACA by keeping a log of PFD use. PFDs are appropriately marked for inventory and retrieval, dried thoroughly, and stored in a well ventilated area. The purchase or rental, maintenance, and replacement of PFDs are properly recorded and attended to accordingly.

FLAT WATER CANOEING AND KAYAKING

Camp Woodson

Flat-Water Canoeing

PURPOSE

- To offer an alternative expedition medium to hiking.
- To get wet and have fun!
- To focus on cooperation, teamwork, and communication skills.
- To learn decision-making and problem-solving skills.
- To learn a new skill, overcome fears, and work as an independent partnership. To develop respect and patience for your partner.
- To provide training for white-water canoeing.

SAFETY POLICY

1. The temperature of the air and water should be a primary consideration in deciding if canoeing should take place and, if so, for how long (sun, shade, and windchill must be considered). Air and water temperature must equal at least 100 degrees F.
2. Life jackets must be worn by staff and students while loading and unloading boats in the water and at all times on the open water.
3. A site leader will be designated for all flat-water canoe trips.
4. Counselors will carry sufficient gear to treat a case of hypothermia.
5. Safety procedures will be reviewed with students each paddling day, more frequently if necessary.

TEACHING OUTLINE

Flat-water canoeing can be used as a step in building skills for the white-water teaching progression or as an activity in and of itself. Students often have a high fear of water (particularly, murky, dark, cold water), which can complicate learning this new skill. Remove as many stresses as possible before teaching boating skills. Desensitize fears by spending time in the water with life jackets on, exploring flora and fauna of lake and river environments, and finding fun things to do in canoes and lakes.

Structure canoe lessons as early as possible on basecamp weekends. Use free paddling time as a reward for accomplishing skills-related work. Teach lessons in small blocks of time with as good a staff-to-camper ratio as is feasible. Repetition is important for students to retain learning. Schedule follow-up canoe games, activities, or competitions. Remind students that this instruction and preparation is necessary for their upcoming trip. Keep it fun and active, set up obstacle courses and competitions. Help them get comfortable in their boats and on the water.

Skills to Teach at Basecamp

- loading and unloading boats from the boat rack and the canoe trailer
- parts and names of the boat, paddle
- sizing lifejackets and paddles
- placing boats in and out of the water safely
- proper technique for entering the boat with their partner
- deep and shallow water exits and entries
- proper body position in the canoe (e.g., weight centered., kneeling for strokes in rough water, paddling on opposite sides and why this is important)
- strokes: proper hand position on paddle, draw and cross draw for bow, draw and pry for stern. After they can turn, teach them to go in a straight line forward and back. Consider J-stroke or rudder/pry for stem paddler when lake canoeing
- training maneuvers to become proficient with: straight-line paddling forward and back, turning to avoid obstacles (or gates), side slips, dock landings, T-rescue if Lake James or other large body of water is to be used
- Gunneling up and the reasons why we would do so
- Proper swimming position with boat and partner. Practice swimming a boat, towing a boat, being towed, etc.

When you arrive at the lake or river, assume that they have retained very little. Review all important points, and provide another session of instruction. Boats loaded with gear will add yet another dimension

Safety Procedures to Teach/Review and Practice on the Lake Include

- loading and unloading boats from the canoe trailer
- sizing life jackets and paddles
- fitting life jackets properly, zipped and tied when being worn
- wearing life jackets on the outside so we can observe that they are properly tied at all times
- having a staff boat on the water before students leave shore
- practice gunneling up within the first two hours on the lake
- tying all items directly into the canoe. Do NOT tie things in with the painter lines
- explaining safe distances between boats and from the shore. This will vary based on weather, chop, wind, boat traffic, student's ability and behavior, etc.
- paddling perpendicular into oncoming waves from power boats, being aware of speeding power boats.
- wearing shoes at all times while in the boats and water
- covering up and/or use sunscreen to reduce the problems of sunburn on the water.
- swimming from the boats is acceptable. Gunnel up in a safe place like a small quiet cove, keep boats together, designate a lifeguard, swim with lifejackets on at all times

Staff Note for Lake Canoeing

- Carry a safety rope in each staff boat.
- Do not travel in the dark. Exercise extreme caution in twilight, and have lights ready to alert oncoming power boats.
- Ensure students take proper care to avoid serious sunburn.

Lightning

- Be on alert whenever you hear thunder. Sound travels great distances over water, making it difficult to determine which lightning strike has caused the thunder you are now hearing.
- Have a plan in effect if it's close to 5 miles (25 seconds) away.
- Avoid wide crossings if storm proximity is 5 miles or less.
- If not already on shore, be on your way or close to shore once strikes are within 2 miles (10 seconds).
- Follow lightning drill procedure if lightening is within 1 mile. It is acceptable for students to sit on life jackets for lightning drills. Remember to pull boats well up onto shore and/or tie them.

Staff Note on Life Jackets

- Staff must visually inspect all PFDs once per session and document in the river room log.

Merrowvista Outdoor Education Center

Canoeing

The techniques of handling a canoe are quite easy to learn: most beginners can learn to make the canoe go approximately where they want it to after an instructional session of 1 to 1.5 hours. This often leads to the mistaken assumption that the art of canoeing is easily mastered. True mastery of the canoe requires a lot of long paddling hours in all kinds of water. The relatively simple acquisition of basic canoe skills often leads the beginner to take canoeing too lightly, the root-cause of a great deal of canoeing mistakes. Not only is it important to teach campers basic canoe handling and to continue instruction during the trip, but it is also necessary to do everything possible to foster a healthy respect for the river and/or lake.

THINGS EVERY CAMPER SHOULD BE ABLE TO DO IN TANDEM

(with partner who paddles on the opposite side of the canoe)

1. Carry a canoe 100 yards.
2. Portage a canoe for a half mile.
3. Board from a dock or a beach without taking water into the canoe or capsizing it.
4. Jump out of the canoe and return without capsizing or swamping it.
5. Paddle a straight line (without switching paddling sides) for 250 yards.
6. Paddle a straight line, marathon racing style, for 250 yards.
7. Paddle straight sideways for 500 yards, without switching paddling sides (should be able to move toward the paddling side and move away from the paddling side).
8. Paddle backwards in a straight line for 50 yards without switching paddling sides.
9. Paddle three full circles, using different stroke combinations each time.
10. Paddle a swamped canoe for 100 yards and empty it in shallow water.

IN ADDITION, FOR TRIPS THAT INCLUDE A VARIETY OF WATER AND PORTAGES, CAMPERS SHOULD BE ABLE TO

11. Single portage a canoe for a half mile.
12. Track a loaded canoe for 250 yards in knee-deep water.
13. Perform canoe-over-canoe rescue with a second canoe.
14. Trim the canoe for various water and wind conditions.
15. Paddle a straight line for a half mile in a loaded canoe in heavy water and various wind conditions.
16. Make emergency repairs on a damaged canoe.

IN ADDITION, FOR TRIPS ON WHITEWATER RIVERS, EACH CAMPER SHOULD BE ABLE TO

17. Maneuver the canoe in whitewater by each of the following ways:

    a) steering b) side-slipping c) back ferrying

18. Read whitewater and plan a route through rapids.

19. Line a canoe for 250 yards.

20. Float through whitewater for 100 yards, wearing a life jacket.

21. Coil and throw a 50-foot line to within 5 feet of a designated target.

22. Rescue a person or a canoe from whitewater.

23. Demonstrate and apply the paddle braces: high brace and low brace.

THE INITIAL INSTRUCTIONAL SESSION

The purpose of this session is to introduce the beginning canoeist to all basic handling skills and to serve as a review for paddlers with canoeing experience. It should also be conducted so the leaders can rate the canoeing ability of the group and each individual. This will aid in planning future instructional activities.

NOTE: The law and common sense indicate that each camper have a life jacket in the canoe; non-swimmers should wear one.

1. The method of carrying a canoe to the water is not really important, just so the paddlers can get it there. However, there are some guiding principles to follow in carrying and boarding so that the canoe is protected from damage and swamping.

    - Carry rather than drag the canoe to protect the finish, especially with non-aluminum canoes.
    - The canoe should be supported by water when a person or a heavy load is inside.
    - Place, never drop, the canoe on the ground or water.
    - To prevent capsizing or unstable handling characteristics, keep the center of gravity of paddlers and loads as low as possible and on the keel line.
    - Share the responsibility for keeping the canoe stable by having one person move at a time while his partner stabilizes the canoe.

    Have campers practice carrying and boarding from the beach as well as from the dock. Emphasize that campers need to share the responsibility for the canoe (and paddles and life jackets) and for each other.

2. To maneuver the canoe in flatwater, only a few simple strokes are required. However, an understanding of the basic principles of canoe strokes is useful.

    - On flatwater, the sternsman controls the course.
    - The power of the strokes comes when the shaft of the paddle is perpendicular to the water.
    - By using both arms to apply power, the paddle acts as a lever, which is more efficient than using just the lower hand to pull or push the paddle through the water.

- When paddling forward, the canoe moves away from the paddling side; when paddling backward, the canoe moves toward the paddling side.
- The sternsman (even a weak one) has more paddling leverage than the bowman and will eventually over steer the bowman, e.g., if the bowman paddles on the left side and the sternsman on the right, the canoe will veer off a straight course to the left.

The sternsman's basic strokes for steering are the *sweep* (for turning away from the paddling side) and the *stern rudder*, the *pry* and the *J-stroke* (for turning toward the paddling side).

- The sweep is merely a variation of the basic forward stroke, which is performed by extending the paddle farther from the gunwale than the basic stroke and sweeping the paddle in an arc.
- The stern rudder is executed by sticking the paddle out from the boat at about a 30-degree angle from the keel line. Because the paddle does not move (hence the name "rudder"), this stroke works only when the canoe has forward momentum.
- The pry is faster and more powerful than the stern rudder. It starts as a rudder held close to the boat, with the blade vertical; then the blade is pushed outward, away from the boat.
- The J-stroke is more difficult to master than the pry but does not cause the canoe to lose forward momentum (as the stern pry does). About halfway through the basic forward stroke, the back of the blade (the "power face") is turned outward so that the whole stroke is done in one smooth motion.

NOTE: *at the completion of the J-stroke, the top-hand thumb is pointed downward; at the completion of the stern pry, the top-hand thumb is pointed upward. The stern pry is generally learned much more easily, but the J-stroke is more efficient.*

Practice these strokes and principles by attempting to keep a straight course. Make sure that both canoeists have equal chance at the stern and the bow. Switch paddling sides periodically to gain proficiency on both sides, but do not switch paddling to correct poor steering (the mark of the novice canoeist). The best way to practice the J-stroke is solo paddling.

3. Explain the technique and use of the draw and pry strokes (see "Downriver Paddling" on the next page). They are the primary turning strokes to river travel when the sternsman cannot handle the steering alone (because of fast current, sharp turns, etc.). Practice these strokes by pinwheeling or by moving the canoe sideways and traveling through obstacle courses). The English Gate Test is the best obstacle course to use for training for river paddling.
4. Finish the session by practicing these skills:
   - jumping out and getting back into the canoe without swamping it
   - canoe-over-canoe rescue (see section on "Rescue")
   - paddling a swamped canoe to shallow water and emptying it. Insist that campers keep close watch on paddles and life jackets, which would float downstream rapidly in a river.

DOWNRIVER PADDLING

Downriver paddling differs from flatwater in that turns are the order of the day, instead of holding a straight course, and that the river provides its own current, so forward momentum need not be totally supplied by the canoeists. The key strokes in downriver travel are the lateral strokes, which cause the canoe to move sideways. They can turn the canoe on a much shorter radius than forward turning strokes and do not compound the problem of making the turn by making the canoe move faster, as forward strokes would.

1. *The Draw Stroke:* The blade is placed vertically in the water, parallel with the keel line and straight out from the shoulder. While leaning as far over the water as possible, the canoeist pulls the paddle forcefully to the side of the canoe. Note that this stroke is stabilizing. The draw stroke causes the canoe to move toward the paddle.

2. *The Pry Stroke:* Used to make the canoe move away from the paddling side, it is performed by the sternsman about the same way as the flatwater pry stroke, except that the paddle blade is held closer to the canoe at the start of the stroke and that the lower hand locks the shaft of the paddle against the gunwale, acting as an oarlock. Most of the power is provided by the grip (top) hand as it pulls in and across the chest. When performed by the bowman, the pry is started by holding the shaft of the paddle vertical. To recover a pry stroke (or a draw) more quickly, the blade is kept in the water and "feathered" back to the starting position. The pry is a very unstable stroke.

Practice these strokes by pinwheeling. Have campers use various stroke combinations and spend equal amounts of time in both the stern and the bow as well as left and right paddling sides. Obstacle courses and slalom gates are also very good training exercises.

Once the downriver strokes are learned, application of the strokes to the river is next. Campers need to know and practice these general principles:

1. The bowman takes more responsibility for steering the canoe than the sternsman, and, in whitewater, chooses the route through the rapids. The speed of the current and the amounts of clearance determine who is responsible for steering. The more difficult the water, the more steering the bowman does.

2. The canoeists paddle on opposite sides of the canoe and do not change paddling sides in a turn or rapids.

3. Each paddler takes care of handling her/his end of the canoe, but at the same time, each needs to be aware of what her/his action does to her/his partner's end of the canoe.

4. The ability to use various strokes well is not the only factor in downriver travel; the river's current, configuration, and obstacles are major considerations.

5. In fast water, the bowman initiates the turn (using his paddle as a pivot about which the canoe turns) and the sternsman follows the bowman's lead by completing the turn and holding the canoe in the new direction.

6. In downstream maneuvers, it is best to slow forward momentum, especially when clearances are small. This checking action works best when the bow initiates the turn, which moves the canoe to the inside of the turn and, in effect, upstream (when the stern straightens the canoe).

Campers need instruction and practice in reading a river to be able to make intelligent judgments about their route. A brief introduction to river reading at camp should be followed by instruction on the river as soon as the opportunity arises (definitely during the first two hours on the river).

1. Read water, not rocks, logs, or other obstacles.
2. If the river runs slow, it must be deep. If it is fast and wide, it tends to be shallow. If it is fast yet narrow, there may be enough depth.
3. The speed of the current is not the same across the river: It is fastest in the middle and slowest near the shore. Also, behind large rocks, the current may be much slower than the rest of the river (this is an *eddy*).
4. In turns, the river is generally deep on the outside of the turn and shallow on the inside. The current runs diagonally across the turn and then parallels the banks.
5. A solid ledge tends to fend off the water and the canoe, but an obstacle through which the water flows (a fallen tree is very common, especially at the outside of a band) is very dangerous.
6. "Pillows" are stuffed with rock. If the wave is farther downstream than its rock, the rock is more submerged.
7. Follow the downstream "V" marks; the upstream-facing "V" marks indicate rocks.
8. Standing waves (a series of scalloped waves that appear stationary) indicate deep water. These are safe to run unless they are big enough to swamp.

The best vantage point for reading the water is from below. Have the campers get in the habit of glancing back at the river to practice reading.

Steering on a river is different than on a lake, where you spend most of your energy holding a straight line and following your nose. There are some special maneuvers that the river paddler needs to be able to do.

1. *STEER* in slow water, to maneuver around river bends and obstacles. Sternsman does all the steering when there is plenty of room. In more difficult situations, the person in the bow begins the turn with a draw or pry, and then the person in the stern follows the lead of the bow. In a sharp river bend, watch out for being carried from the inside of the turn to the outside (by the diagonally moving current) and into the fallen trees that usually "make their home" there.
2. When dodging rocks (and other obstacles) in swift water, maneuver the boat by using prys and draws to *PARALLEL SIDE SLIP*. Steering in swift water too often causes dangerous broadsiding, so it is important in faster water to keep the boat lined up with the current.
3. If the canoe needs to be moved across the stream in swift water (side slipping is for short dodges), use the *BACK FERRY*. By setting the stern at about a 30-degree angle in the direction the boat needs to go and back-paddling just enough to hold the canoe in the current, the canoe will move across the stream. It is important that the person in the stern direct this maneuver with loud, clear verbal signals (e.g., "back," "left").
4. At LOG JAMS, BEAVER DAMS, and FALLEN TREES across the entire river, keep the canoe parallel to the current. The person in the bow gets out and pulls the canoe as far over the obstacle as s/he can. At that point, the person in the stern gets out and they can pull it over together. Or, if the obstacle is narrow enough so that the person in the bow can pull the canoe at least halfway over, the "teeter-totter effect" can be used by having the person in the stern move into the center of the boat while the person in the bow gets back in so that the boat uses the obstacle as a fulcrum.

Sometimes canoeists do make mistakes and get into less-than-desirable situations. It is important that campers be prepared to avoid these troubles and equally important that they are prepared to handle themselves wisely and with coolness if they get into trouble. Explain these principles before the trip, and review them periodically while on the river. Some can and should be practiced.

1. Keep your paddle in the water and use it. DO NOT push off obstacles with your hands or paddle, and don't grab hold of branches.
2. If the canoe gets stuck (stops) on a rock or log, jump out on the upstream side. If you do not, the water may reach up and over the side or back of the canoe and swamp it. If you jump out downstream, you are in serious danger of getting pinned between the obstacle and the canoe. Keep shoes on to avoid bruised feet. Then, hold the upstream gunwale up to avoid swamping, and lift the canoe off the obstacle.
3. IF THE CANOE BROADSIDES AGAINST A ROCK OR LOG, the bowman needs to lean the canoe downstream (using a low brace) while the sternsman very quickly gets out. This "unweights" the stern so the canoe can pivot around the rock and head downstream. The sternsman can then hold the canoe in the current and get back into the canoe.
4. IF THE CANOE SWINGS STERN DOWNSTREAM after pivoting around an obstacle, do not fight it. Run the rapids backward until you can safely turn the boat around.
5. IF THE CANOE TAKES IN WATER, get as low as possible, because the canoe is less stable. At the earliest opportunity, empty the water.
6. IF THE CANOE FILLS WITH WATER (SWAMPS) OR GOES OVER (CAPSIZES), get to the upstream end of the canoe fast. Stow the paddles. Line up the canoe with the current by kicking. Stay with the canoe-it is your best life preserver. Ride it to shore, and empty it.
7. IF YOU GET THROWN OR SWEPT CLEAR OF THE CANOE, float on your back with your feet downstream. Relax, and use the current. Aim for shore. Look for a rope throw, grab it and be ready for a very strong pull; hold on, but don't tie it. Floating through a rapids and rope rescue should be practiced as well as explained.
8. WHEN YOU GET OUT OF THE WATER, dry off immediately.

Besides being able to handle themselves and their canoe when in trouble, participants also need to know how to rescue other people from trouble and to salvage canoes.

1. *Practice throwing rescue ropes.* Make two clockwise coils, and hold one in each hand while stepping on one end. Throw one coil while the other feeds off the left hand. Throw underhanded so the rope lands just downstream of the victim. Do not tie loops or floats in the end of the line, because they get hung up.
2. *Practice belaying the line.* If a tree is not available, use a hip belay. The belayer sits facing the river with rope around his hips and his feet braced. The right hand merely guides the rope while the left holds tight, with the elbow locked.
3. *Save the people first.* Worry about the canoe later. Learn and be able to apply first aid.
4. *Retrieve the canoe and lost paddles.* The canoe-over-canoe rescue is practical on lakes and wide rivers, even in waves or current. The rescue canoe should be upstream of the swamped canoe, which is pulled, upside down, over the middle of the rescue canoe. When the water is emptied, the rescued canoe is turned right side

up and pushed back downstream. During the procedure, one paddle braces the rescue canoe while the other(s) takes care of the swamped canoe. Wet paddlers can then board their "de-swamped" canoe.

5. Salvage canoes pinned against rocks. This can be done by a group of several persons or with a winch and line. In shallow water and moderate current, the group's strongest swimmers should move out to the boat (preferably from upstream) and try to lift, roll, and turn one end downstream. Raising one end will lighten the boat and decrease the push of the current. If the hand winch is required, anchor the winch to a rock or tree so the line will pull the end of the canoe that will be upstream. Any line for pulling should go around the entire hull before fastening to a throat and should lead to the winch over the high side of the canoe.

There are some basic safety rules groups should use when paddling a river. They should be followed religiously. It is the leaders' responsibility to insure the safety of each member of the group by insisting that these principles be adhered to without deviation.

1. The lead boat is never passed. It is very important that there is no confusion about which canoe is assigned to the lead. The lead needs to have appropriate maps and a compass.
2. The sweep, or last canoe, never passes any other boat. The same rule about the assignment of the lead applies to the sweep. The sweep canoe is manned by at least one strong swimmer and should have the repair supplies and a first aid kit.
3. Each boat keeps the one behind it in sight, waiting if necessary. This also holds for starting out on a portage trail and for leaving the portage trail to return to the river.

In white water, the lead canoe (and the leaders, if they are not in the lead canoe) has the responsibility for scouting rapids. Leaders of whitewater trips need to explain the factors involved in deciding whether to 'run it' or portage. Early in the trip, leaders need to explain fully their decisions in this regard so that campers can understand practical application of these considerations. The following questions need to be answered at each rapids:

1. Can we run it or should we portage? Can we portage the gear but run the rapids in unloaded canoes?
2. Is there a portage trail or do we have to bushwhack?
3. Should the lead boat have a rope throwing party in position?
4. Does each boat have to wait until the boat ahead runs the entire rapids? (Is there room to maneuver around if the boat ahead gets hung up?)
5. Should each boat wait in a potential rescue position for the following boat after finishing the run?

A REVIEW OF STROKES

To summarize the paddling strokes, here is Rugge and Davidson's list of strokes to know. When referring to the "power" face of the blade in the description of strokes, we mean the side facing the stern during a forward stroke. That is called the power face, even when it is not the side pushing the water (which it is not during the stern pry and some other strokes).

Moving

Forward Stroke

Purpose: For straightaway paddling.

Comments: Comes about as naturally as walking. (Remember, it took you a year to learn to walk.)

Backstroke

Purpose: For moving in reverse, checking speed, or stopping.

Comments: Rarely necessary in flatwater, but you'll use it as much as the forward stroke in whitewater.

Cross Backstroke

Purpose: Same as the backstroke.

Comments: Used mostly when paddling single, for fine control in whitewater. The ordinary backstroke tends to move the bow toward the side of the paddle; the cross backstroke does the same on the other side of the boat.

Turning

Sweep

Purpose: To turn the canoe away from the side of the paddle.

Comments: Used in both bow and stern, but works slowly and in long arcs. The aptly named "reverse sweep" is the sweep in reverse.

Stern Rudder

Purpose: To turn the canoe toward the side of the paddle.

Comments: Only effective when the canoe has forward momentum. Basically, a flatwater stroke for correcting course and making gradual turns.

J-Stroke

Purpose: To turn the canoe toward the side of the paddle.

Comments: A weak stroke used only by the sternsman for correcting course in flatwater paddling.

Stern Pry (Or Push)

Purpose: To turn the canoe sharply toward the side of the paddle.

Comments: For the pry, the paddler locks the paddle shaft to the gunwale, like an oar. What we call the "push stroke" is identical, except that the shaft as well as the blade is pushed away from the canoe. Both variations are useful on lakes and indispensable in whitewater.

Bow Pry

Purpose: To push the canoe sharply away from the side of the paddle.

Comments: Note that, unlike the stern pry, the paddle is held vertical to the water. The bow pry is the trickiest and least stable stroke of all. Be especially careful not to catch your paddle on a rock.

Draw

Purpose: To pull the paddler's end of the boat toward the side of his paddle.

Comments: A powerful stroke that is equally important in the bow and stern. When performed properly, the draw actually stabilizes the canoe.

Crossdraw

Purpose: To turn the bow sharply to the paddler's off side.

Comments: Used only in the bow. The crossdraw is a useful alternative to the bow pry.

Inverted Sweep

Purpose: To turn the canoe sharply toward the side of the paddle.

Comments: This is actually the draw stroke, forward stroke, and push stroke done in a single smooth motion by a solo paddler. Most effective and most necessary in highly rockered canoes.

Bracing

Low Brace

Purpose: To steady the paddler in the direction of his lean.

Comments: Used by either the person in the bow or stern to provide stability in twisting currents. It blends easily with the backstroke, the reverse weep, and the stern pry.

High Brace

Purpose: Again, to steady the paddler in the direction of his lean.

Comments: A radical version of the draw, useful to both bow and stern. Good for stability or for turning (e.g., into or out of eddies).

Sculling Draw

Purpose: Same as the draw.

Comments: Provides bracing support as well as turning power of the draw by minimizing the recovery phase of the stroke.

USELESS STROKES

(which certain Official Guidebooks continue to foist shamelessly upon an unsuspecting public)

JAM: A fanciful stroke used to stop the canoe. It has been suggested that you hold the paddle "with the thumb and fingers of your lower hand hooked securely against the gunwale." The best advice is to ignore this and use a backstroke.

OUT-DRAW: As near as can be figured, this is the draw in reverse. A misdesigned stroke that lacks the leverage of the pry.

BOW-RUDDER: This stroke is slow, for one, awkward for another, and needs a second person to provide the power for the turn. Besides, when was the last time you saw a sailboat with a rudder in the front?

CROSSBOW RUDDER: Misery compounded. Use a crossdraw or pry.

THE "FLAM": The boating editor of a major sporting magazine has this advice on handling big haystacks: "If the person in the bow is a real expert, s/he will lean forward and slap her/his paddle from side to side, to 'flam' an open path through the frothy wave... " Best trick since Moses parted the Red Sea.

LAKE PADDLING

On lakes and other types of open water, canoeists commonly encounter special situations that do not apply to the river canoeist. For campers that will take trips involving lake travel, explain these principles, and practice them before leaving on the trip.

1. Load the boat so it balances evenly in the water with packs and paddlers aboard. Packs should be tied to the thwarts and stowed, to keep the center of gravity low.
2. In headwinds, "quarter" into it (aim just off straight ahead) to minimize swamping. Have a bailer ready, and use it if necessary.
3. Trim the windward end of the boat a bit lighter to avoid swamping. The windward paddler can move closer to center of the canoe.
4. For extra stability, rig a catamaran by lashing two boats 3 to 4 feet apart, with the bows closer together than the sterns.
5. In tailwind, a catamaran can be sailed by rigging a tarp or groundcloth to the bows with paddles as masts. Lines attached to the top corners of the sail are held by one sternsman while the other uses his paddle as a rudder to steer.
6. With a tailwind and heavy waves, a sea anchor may be necessary. Use a bucket, etc., to furnish drag, and attach the anchor line at water level so the anchor will not drag the stern down. The sea anchor keeps the canoe from broadsiding in the waves.

PORTAGING

Portaging is required when the group needs to cross a stretch of land between two bodies of water. Fast, efficient portaging centers on quick, no-nonsense unloading and loading, not moving at a fast pace down the portage trail. In fact, tortoise pace, as usual, is a faster way to manage the portage trail than the hare's pace, which involved lots of rest stops between intervals of running.

Two-Person Carry Method

The two-person carry is best used for smaller campers. It is usually done by both canoeists lifting one end of the canoe so one of them can get into portage position with the front of a seat resting on her/his shoulders; the other partner then takes her/his position at the other end and lifts up the canoe. (Make sure campers lift with their legs rather than their backs, by bending at the knees, not at the waist.) While walking, the front person is responsible for finding the trail. This method is usually done by moving the packs first, to find the trail, then coming back for the canoe.

One-Person Carry Method

The one-person carry is more difficult in that it requires more strength but it is a more efficient way to travel the portage for this reason: The portage can be completed in one trip since your partner can carry both packs. Portage yokes can be made by strapping the paddles across the thwarts with parachute cord and heavy duty tape and leaving them in place to be used at each portage. Other types of yokes would be to wear a horse-collar life jacket, and tie the chest straps behind the head instead of

their at usual position, or to wear an external frame backpack with a good hipbelt and have the middle thwart rest on the shoulder pads (between your shoulders and the frame).

In the one-person carry, the canoe can be lifted into place with the help of a partner, as in the two-person carry, but most canoeists prefer to lift it themselves. The keys to the one-person lift are:

1. Stand at the side of the canoe, opposite the middle thwart.
2. Lift the canoe by gunwales, so it rests on your thighs
3. Shift hands to obtain proper grip on center thwart (both thumbs to the inside of the canoe and palms, not knuckles, pointing in the direction you intend to go).
4. Vigorously swing, using the strength from your back, legs, and arms, the canoe onto your shoulders.

Practice lifting and carrying. Make sure everyone has equal opportunities for practice, and have the quick learners help people who learn more slowly. Also, after some portaging is done, point out that, although portaging a canoe is usually painful, it gets easier to bear with practice and is not the sort of pain that interferes with the ability to walk.

MARATHON RACING STYLE

Marathon canoe races (on flatwater for distance) use a different technique than listed in the previous section. They switch paddling at regular intervals (about every 3-5 strokes) to avoid using steering strokes, which lose forward momentum. They switch sides very quickly and at the exact same time, when the sternsman gives a verbal signal, so as to not miss a stroke. This technique requires good teamwork but is the fastest way to travel on flatwater and is easily learned.

PRACTICE ACTIVITIES

Besides the activities listed in the preceding sections and in the list of minimum skills for each camper, here are some other activities for canoe practice at camp before departing on the trip.

1. Lake travel in windy conditions: When conditions are right, practice holding a straight course. This exercise is not valuable unless canoes are loaded.
2. Surfing in Lake Michigan: When waves are up, this is an excellent training for whitewater paddlers, especially for mastering the paddle braces. Life jackets required!
3. Stream work: This is best done in a narrow stream. See how far campers can go without touching banks or overhanging trees. Upstream work is good for time-tuning turning strokes.
4. Portaging: Carry the canoe on a trail over difficult terrain.
5. Group paddling in one canoe: Put six people in one canoe for a test of teamwork and stability.
6. Rescue activities: Practice paddling a swamped canoe, canoe-over-canoe rescue, rope-throwing, belaying, winch use, etc., for the groups these rescue skills apply.

RIVER PRACTICE

Some skills and maneuvers cannot be practiced before the trip. At the first opportunity on the trip, these maneuvers should be explained again, demonstrated, and then each boat run through one at a time. Leaders should criticize (positively as well as negatively) the run of the boat. Common maneuvers to practice on the river:

1. Reading the water
2. Navigating sharp bends
3. Maneuvering around fallen logs across the river
4. Steering (pivoting) around an obstacle
5. Parallel side-slipping (fast water)
6. Back-ferrying (fast water)
7. Swimming in fast water
8. Simulating rescue of people and boats in fast water

WHITE WATER CANOEING AND KAYAKING

The Venture Program at University of North Carolina

White-Water Sports

A. PURPOSE

1. To provide a different, natural environment in which to challenge the individual and group.
2. To provide one-on-one interaction between group members.

B. STAFF RESPONSIBILITIES

1. ***Staff should carry the following equipment on their life jackets or their persons: two prussiks, two carabiners, a knife, and a whistle. Each staff boat should have a throw rope stowed where it is easily accessible.**
2. ***Staff must have reconnoitered area to be paddled and will have knowledge of:**
   a. **technical difficulties and possible dangers**
   b. **minimum and maximum water levels for running the river**
   c. **minimum time needed to complete the trip**
   d. **emergency procedures and accessibility of help**
   e. **equipment required**
3. ***Instructors will decide when a rapid or section of the river needs to be portaged by one or all of the participants.**

C. SAFETY CONSIDERATIONS

1. ***You MUST stress that water activities are potentially dangerous. In your safety talk, discuss the following points:**
   a. ***Hypothermia: On chilly days, participants will be instructed in recognition and treatment of hypothermia before going on the river. Participants will always be told to carry some piece of clothing for warmth on the river.**
   b. ***Swim policy:**
      i. **No diving is allowed at any time.**
      ii. **Dipping in shallow (no deeper than waist level) calm water or quiet pools is okay if no dangers are evident.**
      iii. **If a certified lifeguard is present and is "on duty," people may swim in areas that are relatively free of danger.**
   c. ***Swimming rapids: Rapid swims are allowed when the following conditions are met:**

i. **there is a pool below the rapid in which it is easy for people to stop and get out**

ii. **all participants are wearing life jackets**

iii. **all participants are instructed in the proper way to swim a rapid (feet up, on back, feet first)**

iv. **a staff person with a throw rope is set up below the rapid**

d. ***Life Jackets: Life jackets will be worn when engaged in all white-water activities and when engaged in activities at river edge that could lead to falling in.**

e. ***Helmets: Suitable helmets will be worn while kayaking and when rafting Chattooga Section IV or any other river where staff feel they are necessary.**

f. ***Clothing: Adequate warm clothing must be taken on the river (e.g., a wool sweater and a paddling jacket). Shoes must be worn while on or in the water.**

2. Practice: Have all participants practice the following:

   a. inspecting and fitting a life jacket

   b. feeling the power and coldness of the river

   c. the rapid swim position with and without the boat; emphasize relaxing in the current

   d. capsize, overboard, and self-rescue procedures

   e. boat handling, strokes, maneuvers, body positions, etc.

   f. reading the water

3. ***Lead and sweep boats: Lead and sweep boats will be designated. The lead boat will not be passed; the sweep boat will stay near the end and will carry the first aid and repair kits. Groups will remain together, regrouping after each major rapid.**

4. River signals: Participants should be taught the following signals:

   a. Vertical paddle: All clear, come ahead.

   b. Horizontal paddle: Stop.

   c. Paddle at 45 degree angle: Go in direction paddle is pointing.

   d. Rotating paddle in a circle: Help, get to shore and come to where assistance is needed.

5. ***Swamping: All craft must be able to support its crew when swamped and not be overloaded.**

6. Throw lines: Participants may be trained in the use of a throw line.

7. ***Reconnoiter: Staff members will reconnoiter rapids before participants go through.**

8. ***River hazards: Teach participants about river hazards, especially strainers, holes, (point some out), breeches, pins, and inform them what to do if encountered.**

9. ***Capsizing: Instruct participants what to do if they or others capsize: wet exit, Eskimo rescue, Eskimo roll, and how to "swim" a rapid.**

10. ***Scouting rapids: At each major rapid, the group must identify obstacles, judge the current, and propose a route while scouting from shore.**

11. Geology: Discuss the geology of the river with participants if there is sufficient time and interest.

SEA KAYAKING

Hurricane Island Outward Bound School

Sea Kayaking

The HIOBS sea kayaking program began in 1982. Since then we've explored and discovered places previously inaccessible to more conventional types of vessels. Each expedition should be treated as a unique opportunity to gather more local knowledge of the cruising area. There is still a great deal to be learned and shared.

The concept of perceived risk vs. real risk is very evident in sea kayaking. Even in moderately heavy weather, students will react to the situation. Instructors must be prepared at all times to take control of an emergency possibly involving several kayaks. As always, student safety depends on the instructor's ability to assess the risk in any given situation.

This section of the manual provides the sea kayaking instructor with a set of approved guidelines to use when teaching a kayaking course. These guidelines should be supplemented by the professional judgment of program directors, course directors and sea kayaking instructors. In addition, instructors are urged to increase their knowledge and skill level by studying the expanding library of sea kayaking literature and by paddling with each other. As these guidelines may change from time to time, instructors must be sure to inform themselves of any changes to these guidelines during course preparation.

LOCAL OPERATING PROCEDURES

The state of Maine requires that there be an instructor for every six students.

Properly fitted and zipped Type I approved PFDs must be worn at all times by instructors and students while in the kayaks.

Whenever students are on an expedition, there should be a power boat available to escort the convoy through risky situations and to provide assistance if necessary.

1. Cruising and crossing rules
    - There will be no night paddling.
    - Kayak groups should always travel in convoy.
    - Unless making a crossing, kayaks should be within one mile of shore.
    - Crossings should not put kayaks more than two miles from a shore, with careful attention paid to weather, wind, and tide.
2. Capsize
    - Sea kayaks used in the HIOBS sea kayaking program should be capable of providing adequate floatation to float awash with one person aboard.
    - All students, prior to departing on an overnight expedition in a sea kayak, will have successfully completed a minimum of one capsize, including bailing and re-entry.

- This capsize will be done within 25 yards of shore and supervised by two instructional staff.
- Location and time of capsize drill should depend on weather and current.
- A thorough briefing of the practice capsize procedure should be given by the instructor prior to the exercise.
- If a capsize should happen underway, all boats will maintain station in close convoy *just* downwind of or abeam the capsized boat. The designated staff rescue kayak will assist the capsized boat with student participation if feasible.

3. Staff
   - All staff should have completed a basic staff training that includes capsize and rescue procedures, basic paddling instruction, and, if possible, heavy weather paddling.
4. Student Prerequisites
   - Non-swimmers will not be accepted into the program. In the event that a course participant cannot adequately demonstrate swimming ability in the Student Swim Test, the instructor must notify the Course Director (CD) immediately.

TEACHING THE FUNDAMENTALS OF PADDLING

BASIC STROKES

Before students get on the water in kayaks, briefly explain what to do in the event of a capsize, and have them practice releasing their spray skirts using only one hand.

Instructors may wish to conduct a brief paddling lesson on shore to familiarize students with the paddles. Include a discussion of the feathered vs. non-feathered paddles and a description of tendinitis (cause and prevention). Also useful in this briefing is a discussion of braces used for entering and exiting kayaks.

During the initial paddling lesson, instructors should cover the following strokes:

- Forward stroke with proper hand placement and height
- Reverse stroke
- Turning strokes: forward sweep, reverse sweep, coordinating sweeps for quickly turning doubles
- Draw strokes: regular draw, sculling draw stroke
- Support strokes: sculling, low/high brace, slap support

Good form can increase efficiency and prevent injury. Some indications of good form on the forward stroke are:

- Hand powering forward does not cross the centerline of the kayak
- Hand powering forward does not rise above shoulder height
- Zipper on PFD moves from side to side, indicating good torso rotation
- Hand of pulling arm pulls only as far as your waist
- Relaxed grip on paddle; wrists in line

CAPSIZE DRILL

Objectives

- To familiarize students with a possible capsize underway.
- To work efficiently as a team under stress, remaining calm and following directions.
- To relieve student anxiety about being trapped in a capsized boat.

Dry Run

It is recommended that instructors explain and demonstrate the capsize and rescue drill on land as part of the initial capsize and rescue briefing.

Points to cover:

- The 3 Ls: loops (spray skirts), life jackets, lines.
- Releasing the spray skirt with one hand.
- Proper method of wet-exiting boat.
- Signaling trouble during exit: pounding on the bottom of the kayak.
- Checking for paddling partner.
- Recovering paddles.
- Moving to ends of kayak; hanging from the toggle.
- Righting the boat.
- Using the assist boat.
- Re-entry procedure; staying low to the deck.
- Pumping out.

In Water Demonstration/Student Capsize Drill

- With one instructor ready to help if necessary and two students in a rescuing double kayak, the second instructor should choose an appropriate student to join him/her in the demonstration boat.
- When everyone is in place, the demonstration boat will complete the procedures outlined in the dry run section above.
- After the in-water demonstration is complete, the rescuing boat becomes the capsizing boat and two new students enter the just-pumped kayak. They will assist in the rescue. This rotation continues until each student has successfully completed the drill.
- During the student capsize drills, one instructor stays on the float and the second is in the single kayak ready to tow the student boats out from the shore or float, if necessary.

All-in Drill (optional)

If time and conditions permit, instructors may ask students to complete an all-in drill (self-rescue without the aid of another boat). Instructors should use their discretion as to how many boats may capsize at once. Instructors should be prepared to tow drifting boats during this exercise.

Actual Capsize Underway

In the event of a multiple capsize:

- The designated instructor will direct from his/her kayak the recovery of students and boats, assess the danger of rocks, tow if necessary, and determine whether to abandon kayaks and recover students only.

- Hypothermia may well be a problem after the capsize.
- The pumping and bailing process should keep people warm.
- Immediately upon completion of re-entry and bailing, the convoy should proceed to the nearest safe refuge to address the needs of students and equipment.

Instructor Training

Instructors should be familiar with and practiced in many forms of self-and assisted-rescues, including:

- Assisted rescues (T and H rescues)
- Self-rescues (paddle float and Eskimo roll)

TEACHING EXPEDITION SKILLS

COMMUNICATIONS

Communications between boats should not be a problem when convoy procedures are followed. When it is a problem, the following signals can be used:

Paddle signals

Sea kayakers should agree on signals similar to the canoeing signals in the white-water skills section of this manual, especially when running tidal fast water.

Horns

Air horn and mouth horn signals should be used to warn other boats of the kayaks' presence:

- *One prolonged blast every two minutes:* for use in fog.
- *Four short blasts:* if you can see the other boat and are in danger of collision. Repeat until out of danger.

Radios

A small hand-held VHF, which is sufficient to reach Hurricane Island via the Marine Operator in Camden, is carried by an instructor.

Radio procedure is the same as for Pulling Boats. Check with CD for current call signs.

Refer to the VHF section in the Sailing Chapter for specific radio procedures.

All convoys will make contact with their designated base every 24 hours.

NAVIGATION

Teaching navigation is a combination of land and sea techniques. It includes:

Charts

- Orientation
- Color/shades
- Depth soundings
- Aids to navigation

- Contour lines
- Compass rose (also, teach how to take a bearing without a compass rose)
- True vs. magnetic north

Tides & Currents

In many coastal waters, tides and tidal currents have dramatic impact on many aspects of kayak navigation.

- Tide height must be known when planning to put in or land, because the tide height determines how much beach will be exposed.
- Changes in tide height can turn an easy landing into an impossible one.
- Watching the current's effect on lobster pots can provide you with solid hints as to the speed of water moving through an area.

Aids to Navigation

- Lights and their characteristics
- Buoys and channel markers
- Sound buoys: bells, whistles, gongs
- Day markers

Use of Compass

- Taking a bearing
- Triangulation
- Students must practice using a compass before they need to rely on it in the fog

Plotting Courses

- Mileage/speed
- Hazards (including ship/ferry traffic)
- Refuges
- Trip log

Fog Navigation

See also "Travel in Fog"

- *Heron Neck:* One 3-second blast every 27 seconds
- *Brown's Head:* One blast every 10 seconds
- *Goose Rocks:* One blast every 10 seconds
- *Rockland Breakwater:* One 2 second blast every 13 seconds
- *Owl's Head:* Two blasts every 20 seconds
- *Deer Isle Thoroughfare:* One blast every 15 seconds

Dead Reckoning

- DRT: Distance = Rate x Time
- Impact of current on speed
- Knowing paddling pace/speed

Ferry Schedules

Instructors should carry and make the schedule, and make students aware of ferry times and routes.

WINDS AND TIDES

Instructors must pay keen attention to changing weather and sea conditions. In particular, instructors should always be vigilant of the confused conditions created by wind against tide. A fine example is the short, steep seas encountered when the prevailing southwesterlies attempt to prevent the tide from ebbing from the west end of the Fox Island Thoroughfare, creating steep waves from Crockett Point past Brown's Head. Be aware of how sea states and the wind are affected by topography. Know patterns in tides and the weather. Absorb lots of local knowledge.

RULES OF THE ROAD

After reading the rules of the road, remember this: Stay out of the way of everything bigger than a sea kayak! We are small and less visible than some ducks.

EXPEDITION EQUIPMENT

Sea Kayaks

HIOBS now uses two types of double kayaks for student use. The primary boat is the Aleut Sea 2 Expedition designed by Howard Jeffs.

With a length of 22 feet and a beam of 26 inches, it is a fast yet stable boat. Airtight hatches, fore/aft and center bulkhead, plus built in bilge pumps and deck lines help make this boat safe and seaworthy. The heavy fiberglass lay up should make these kayaks last well in program use.

One problem with the design is that the rear compartment can be too short for people with long legs. The Aleuts have a narrow construction that may be inappropriate for students with large midsections. Instructors should involve themselves in the process of fitting students to kayaks to ensure that a kayak's limitations will not impede a rescue procedure.

Kayak Care and Maintenance

Have students follow these basic procedures to keep our kayak fleet in good repair for years to come:

- Fully loaded double kayaks require about eight people to lift them.
- Never lift with only the toggles or deck lines, get an arm around the kayak.
- Never stand or kneel on the deck.
- Avoid banging kayaks when rafting up.
- Never drag kayaks over rocks.
- Be wary of hidden rocks along the journey, and lift the rudder if shallow.
- Get out while the boat is still floating.
- Emphasize the "glass" in fiberglass.
- If kayaks are turned over for the night, do not let wooden rudders touch the ground.
- Kayaks should be rinsed out with fresh water after the practice capsize and at the end of the course.
- UV protectant should be applied to fiberglass at least once a year to preserve color and decrease oxidation.

In the field, repair will be limited to the use of Denzotape and duct tape. Fiberglass repairs will be made on Hurricane Island or in Rockland.

Safety Equipment

During an expedition, instructors must carry between them the following:

- 1 waterproof VHF radio
- 2 smoke flares
- 1 freon horn
- 1 throw line, waist unit
- tow lines, deck mounted on each instructor boat
- anakits
- 1 spare spray skirt

Students must carry the following group items:

- 1 radar-reflective device
- 1 spare paddle
- 1 kayak repair kit
- 1 first aid kit
- 1 stove repair kit
- 2 stoves
- food/water
- cooking equipment, fuel/matches
- tents and tarp
- sponges/bailers
- charts and compasses

Each student must carry the following personal items:

- 1 spray skirt
- 1 PFD with whistle attached
- 1 paddling jacket
- 1 wet suit, worn when conditions warrant
- foul weather gear

EXPEDITION TECHNIQUES

See also summary of "Program Procedures"

Convoy Procedures

Boats should always travel in convoy and should be close enough to talk easily with the boat(s) in front and behind them. It is important to keep a close convoy, especially near channels, around headlands, and in fog.

Traveling in convoy is both a safety feature and an important course element. It will test students' communication skills, patience, and sense of responsibility for one another.

Some procedures and considerations are:

- Establish a lead and sweep boat.
- Choose your route according to the strength of the group.
- Keep a close eye on the weather.
- Monitor the health and morale of the group.

A sea kayak convoy can go only as fast as the slowest boat. Instructors should constantly be aware of the location of each kayak.

Shore Travel and Crossings

When considering a passage or a crossing that may involve exposure to a long fetch, e.g., around the southeastern side of Vinalhaven, special criteria should be considered:

- The combination of wind and sea conditions is conducive to safe paddling.
- The weather prognosis is favorable.
- The ability and health of the students is adequate.

Travel in Fog

- Tight convoy should be maintained.
- Radar reflector should be mounted.
- One long blast on the mouth horn should be blown every two minutes.
- Avoid heavily trafficked areas, if possible.
- An escort vessel may be requested at instructor's discretion.
- Radio should be monitored (Channel 16) and security calls made when appropriate.

Note procedure for Security Calls:

"Security, Security, Security, this is the sail vessel Hurricane (call sign). We are a fleet of _____ kayaks traveling from _____ to _____ . Any vessel in the area please acknowledge." Repeat if necessary.

Base Communications

Instructors will make contact with the designated base once every 24 hours.

Rafting

Rafting is simply the joining together of kayaks side by side with paddles braced across the boats and paddlers hanging onto various attachments on the kayaks.

Rafting can be used to bring the convoy together to:

- have a snack
- discuss navigation
- administer first aid
- transfer paddlers
- make decisions
- assess the spirit and physical state of students and instructors

Rafting is not *good:*

- in heavy weather unless necessary
- near congested traffic areas due to inability to maneuver
- near a lee shore

Loading

Kayaks should be loaded with equal weight distribution in mind because the boat's tracking ability can be affected.

- Be sure to keep the fuel and stoves away from food and water.
- Packing food according to day—as opposed to food type—can reduce the usual meal time confusion.
- To save plastic, use labeled nylon foodstuff sacks so food can be packed in single plastic bags.

Landing and Launching

Pre-landing or pre-launching briefings help to organize the process and get everyone to acknowledge the necessity of their participation and cooperation. To avoid damage to the kayaks emphasize the "glass" in fiberglass.

Camping

Camp only in approved sites for which we have permission.

It is important also to give students adequate instruction in setting up camp and to explain how we camp and why we do what we do. This leads into Outward Bound's sensitivity to the natural history of our cruising area and, in a larger sense, the School's philosophy. See the "Backcountry Travel" section of this manual and *Green Islands Green Sea* for more information.

Lightning

The key to lightning safety in a sea kayak is to be conservative with the approach of thunderstorms. Do not be caught in open water as the thunderstorm moves overhead. As in canoes, the highest priority is getting off the water. Beach the boats, and get everyone out of the open inter-tidal zone and up into the woods. Follow procedures for lightning on land.

If you do not have enough time to get out of the water, then you can do little to protect yourself. You should at least separate the instructors and not hold any metal-shafted paddles in your hands.

In the Florida Keys, you should tie your kayaks to the mangroves and, if you have time, climb out of the boats into the dense mangrove thicket. Take your foam pads to sit on out of the water.

See "Lightning" section of the Weather Chapter.

Tidal Fast Water

There have been only a few unintentional capsizes during Hurricane Island sea kayaking courses. Most of these have occurred while negotiating tidal fast water.

Stretches of tidal fast water encountered in the sea kayaking program are:

- Entrance to the Basin on Vinalhaven Island
- Narrows at north end of Vinal Cove in Winter Harbor
- Narrows at south end of the Mill Pond in the Mill River

- Narrows at the south end of the Mill Privilege in Winter Harbor
- Bridge at the head of Mill River

Times of maximum and minimum flow in these areas differ significantly from times on tide tables. The relationship between strength of current and time in the tidal cycle is difficult to predict without lots of experience at a particular area.

Considerations

- Avoid maximum current run within an hour of the high or low water or when the section is Class 2 or less.
- The current, depth, and state of the water at these times will not necessitate the wearing of helmets.
- Before running these stretches of fast water, the instructors should scout the stretch by boat or from the shore.
- An instructor should run the water first, either up or down current, to be followed by the students and lastly by the second instructor.
- An instructor should station him/herself at either end of the fast water stretch. The down current instructor should be in position to perform a rescue.
- Before anyone paddles up or downstream, the students should be given instructions concerning rear rudder steering with a paddle, leaning downstream, making an eddy turn, ferrying, and reading the water, with demonstration and practice of these skills.

STAFF SHOULD REVIEW THE CANOEING WHITE-WATER SKILLS AND SAFETY SECTION IN THIS MANUAL.

CHAPTER VII

Environmental, Emergency, and Cultural Skills

SERVICE PROJECTS

University of New Hampshire

Outdoor Education Program
Service Projects

Staff conducting a service project follow the same guidelines as are followed for other activities. For example, staff and support staff check the site before it is used and have participants fill out medical forms and assumption of risk forms. The participants are informed and questioned about these forms. The area the staff chooses to conduct the activity in is appropriate for the level of the participants. For example, participants who have never been in particular area are not placed in an inappropriate area for them and told to find their way out.

Staff are aware of the history of the area and the potential environmental and cultural impact the activity may have on the area. An example would be if participants visit a sacred shrine: They are informed not to touch it because it could be destroyed that way. Participants helping the homeless on the street or in a shelter create an impact that could be positive or negative.

When the staff inspect the site, they are on the lookout for hazards unique to the environment. Staff are familiar with emergency procedures and where to get rescue help in the area. Emergency operations can be found in the emergency section of the manual and are adapted to the area. Support staff from the area at which the activity occurs also help with emergency planning through listing hospital facilities in that area.

If students need to use specialized equipment such as power tools, farm vehicles, or other machinery, they must receive adequate instruction and supervision to do so safely.

The program is broken down into three sections.

1. Preparation

   Staff check the area as stated above. The staff also plan the activity so that it is safe but allows people to leave their comfort zone. The goals that are determined by the staff and the group are clearly identified to everyone and adapted to meet the needs and abilities of the participants and of the area. The participants are briefed on what clothing, food, and equipment is appropriate to bring. For the Boston experience, participants are told to bring $40 dollars in a sealed envelope, to be used when the participant feels it is absolutely necessary.

2. The Activity

   The service project activity is performed in either one of two settings, an urban area or a wilderness area. Examples of goals include:

   a. The Urban Area:

      The staff will have participants carry out activities that are devised by the staff to meet the goals of the group. Three items will be focused on in these activities. The first is to provide an adventure experience for the participants. The

second is to expose the group to cultural diversity. And third, is that participants help add to the needs as well as learn from the area in some way. Some of the activities that may be carried out are the "Urban Adventure Experience," which includes doing service projects for St. Anthony's Shrine, "School Without Walls," and/or Cambridge Recycling Center.

b. The Wilderness Area:

The participants carry out the activities devised by the staff to help meet their goals. The wilderness setting can provide an adventure experience. This may be accomplished by having participants help with trail maintenance or build rock walls as a team. Solving these problems can give participants a learning experience.

3. The Debrief

The staff may ask questions such as how the students felt about this experience, what they discovered or learned, and how it affected them. Staff may follow one of many forms of debriefing styles (e.g., verbal, writing).

CAMPING

see Environmental Concerns section

INTERNATIONAL CONSIDERATIONS

Alaska Wilderness Studies

International Travel

INTERNATIONAL TRAVEL

The instructor must clearly identify when an expedition begins and ends. Travel to and from an airport is not considered part of an expedition. Travel to and from a country is usually not considered part of an expedition. A clear distinction needs to be made to the students when an expedition begins and ends.

The instructor must clearly identify procedures that the "emergency contacts" should follow if participants do not return at a given time or date. A specific "overdue" date/time should be identified. If a participant has not returned by that date/time, the emergency contact can call the AWS coordinator. The coordinator or a designated AWS employee will manage all questions, will supervise any search and rescue effort, and will provide information to the contacts.

Participants will be given information about any paperwork (passport, visa, etc.) that is required for travel to the specific location.

Each participant will leave a copy of specific information with the AWS office. Each participant must provide this information before the expedition begins. This information includes the AWS acknowledgment of risk, medical screening form, a copy of the passport, driver's license and vaccination verification, and an emergency contact.

Participants will be given information about required and recommended vaccinations. Vaccination information can be obtained through the Municipality of Anchorage Department of Health and Human Services.

Participants will be given information about local plants, animals and/or diseases they may encounter.

Participants will be given information about dietary changes and possible side effects they could experience. They will also be given information about possible water contamination they could encounter as well as purification methods.

Participants will be given information about local weather and a clothing list appropriate for the location.

Participants will be given information on local laws, including laws pertaining to the removal of artifacts and natural objects, and dress codes, if they exist.

Information about the indigenous culture and showing respect for local customs will be included in any AWS international course.

Participants will be given information regarding emergency procedures should an incident occur during the expedition. The steps will be followed in the event of injuries or illness or in the case of a missing participant.

Participants will be given information about travel insurance.

OTHER

CELL PHONES IN THE WILDERNESS

American Alpine Club Board of Directors

Opinion on the Use of Cellular Telephones in the Mountains

The membership of the American Alpine Club, young and old, has seen many changes take place in the sport of climbing. From clothing and tentage to ropes and protection devices, there have been countless developments as new synthetics, alloys, and methods of assembly have come along. Access to remote areas has increased as roads and air-travel links have increased. Communications links have changed as well, going from yodeling and flashing lights to two-way radios and now cellular telephones.

What has not changed in the AAC are our stated purposes, which include the preservation of the mountain environment and dissemination of knowledge regarding developments in mountaineering. From time to time, we have considered issues that may result in having an adverse effect on the mountains and mountaineering, and then adopted Policy Statements regarding them. The use of cellular telephones in the mountains and even on climbs near the roadhead is one such issue. Therefore, we offer the following on this newest form of communication:

Whereas the Board of Directors of the American Alpine Club recognizes that there have been many technological developments affecting clothing and equipment since the sport of climbing began, and

Whereas the Board of Directors of the American Alpine Club recognizes that all such developments can have both a positive and negative effect on the sport of climbing,

We therefore urge those entering into the mountain environment to consider the use of the cellular telephone as follows:

1. The cellular telephone is not a substitute for skill and knowledge in the fundamentals of climbing, which include, but are not limited to, being able to: a) find one's way (navigation); b) prevent against being in situations that could readily result in life-threatening injuries; c) treat injuries; and d) provide for one's own evacuation/rescue in the event of being unable to continue a climb due to difficulty, weather, illness, and/or injury.
2. The cellular telephone is in and of itself not a safety device, nor does it guarantee the delivery of any perceived or needed services in the mountains.
3. Carrying a cellular telephone does not preclude the protocol of letting appropriate people know where one is going and when one intends to return.
4. Using a cellular telephone in the mountains and, in particular, in the presence of others to call family and friends, transact business, or resolve ongoing conflicts may be an infringement on the mountain experiences for which many others have come. These experiences include quietness, a focus on the immediate environment, and a sense of personal space.

5. Using a cellular telephone to ask for unnecessary services, which include but are not limited to: a) asking for directions; b) asking for additional clothing to be brought to the user; c) asking to be rescued for a non-life-threatening or disabling injury is properly considered by those agencies who might be called upon to render such assistance as an abuse of the technology, both on a practical and philosophical level.

6. A cellular telephone IS a communication device that may aid in the saving of lives and limbs if used solely for that purpose in the mountain environment, after all the above have been taken into careful consideration.

Policy Adopted by a Unanimously Passed Motion
At a Duly Constituted Meeting of the Board of Directors on
September 28, 1996

Submitted By:

John E. (Jed) Williamson
Secretary

Cell Phones and Radios on NOLS Courses

Tod Schimelpfenig, Risk Management Director

The National Outdoor Leadership School, January 1995

The changes that portable communication technology are bringing to our traditional wilderness experience have been debated at NOLS, in other outdoor education programs, by land managers, and by the public. In conversations at professional gatherings or around the wilderness "fire," we argue about whether radios or cell phones are appropriate in wilderness, and, if so, then how they should be used: only for life or limb emergencies or to order more hot cocoa at the next resupply, to listen to news and music, or to call your spouse or partner. We also discuss personal radios, portable computers, and global positioning systems.

People concerned about cell phone, radio and other technology in wilderness speak about the undermining of the traditional wilderness experience—remoteness, silence, solitude, simplicity, and self-reliance. They worry that enhanced communication and rescue will only entice risk-takers and place the unskilled or inexperienced in danger. They anticipate the evolution of a new generation of wilderness adventurers who can read a global positioning system, but not a map. Conversely, champions of technology appreciate the ability to communicate, the opportunity to consult with others when faced with a tough decision, and the improved access to rescue efforts. Their wilderness experience is not threatened by these developments.

At NOLS, we have a history of using marine radios in our sailing and sea kayaking programs. We have used radios for years on Denali and other Alaskan courses to schedule pick-ups and check the weather forecast. Since 1989, we have used radios on most courses to communicate during medical emergencies. We now have a generation of field staff for whom emergency radio or cell phone use is a natural and appropriate wilderness tool. We also use synthetic clothing, modern tents, ski and boat designs, injectable epinephrine, and spring-loaded camming devices.

WHERE WE STAND

Within the legal parameters of the Wilderness Act, individual users have broad choices regarding the level of technology they carry. That's as it should be, as long as what is carried brings no physical harm to the wilderness and causes no sensory disturbance to other wilderness visitors. NOLS and what we do as an institution, however, falls within another, more restrictive framework. Without physically compromising the wilderness, we have to provide our students and staff with essential safety equipment. At NOLS, cell phone and radio use may be inconsistent with our traditional images of wilderness, but our practices evolved when immediate communication with the outside world was not possible. It is our position that as technological advances make communication possible from the most remote regions (from every point of view, including financially as well as practically), NOLS will make use of them. This is consistent with our priority of safety and with our routine use of technology to live, travel, and recreate in wilderness. The issue is not if we will use technology, it is how we will use it and what this will mean to the wilderness experience.

Polypro and avalanche transceivers are easy to accept. Cassette players, power drills, and other technology can be intrusive, but I'll speak in this essay only about radios and cell phones. These items are the focal point for the debate on technology in wilderness.

We're worried that because we use these communication tools, remoteness, solitude, and self-reliance will no longer be wilderness attributes. We fear we will no longer rely solely on our wits and our skills; instead, we'll be calling for advice and help whenever anything goes awry. The importance of skills, experience, and independent decision-making in wilderness leadership will thus be a thing of the past.

Electronic devices such as cellular phones and global positioning systems are often touted as "safety" devices. There is danger in this misleading image. Speedy access to medical care and rescue is what we need after our health and safety have been compromised. Accidents are caused, and prevented, by our behavior and attitudes, not by technology. There are examples of how cellular phones create a false sense of safety, thereby promoting carelessness, lack of self-reliance, and unnecessary rescue. Climbers unprepared to spend a night on a mountain have called 911. Hikers disoriented in the woods have called the local mountain shop for directions. Rescuers have responded at personal risk to unnecessary or exaggerated calls for help. The ability to call for rescue at the first indication of trouble has even tempted and embarrassed a few NOLS staff.

Although we may carry radios or cell phones, note the caveat: There are wilderness areas where weather and terrain, and lack of reliable communication and available rescue resources hinder or prohibit fast evacuations. We must also understand the possibility that such technologies may fail. There will always be a need to have sound outdoor skills that help us to be safe and comfortable without technology.

Limiting requests for assistance to the very rare life-and-limb situations and using the minimum tools for evacuation are ideal, but it is not always practical. Things such as group size and environmental impacts should also be considered. Small wilderness groups cannot do long litter evacuations. Helicopters are often the evacuation tool with least wilderness environmental impact. Decisions to call for help should factor in weather, terrain, cost, and available resources, as well as the group's willingness to manage the situation and its ability to make a wise decision. The "minimal tool" concept should be considered in the decision and should be valued by wilderness users, but it won't be the sole deciding factor.

Historically, when we could not call anyone, and before helicopters were common, a leader's choices were simpler. It was easy to believe in wilderness as a place of limited to no communication, rescue, or distraction. There were no technological options. Now, technology tests our wilderness values.

A wise leader uses all available and pertinent information for a decision, whether written in a book, found in discussions with colleagues, or obtained in a phone call. Our challenge is to utilize a cell phone prudently and to not abandon self-reliance and our ability to act decisively and independently.

We need to foster attitudes and habits in leaders to carry only what they need into the wilderness, set aside distractions to concentrate on safety, and enjoy a wild area. These leaders will be those who are not influenced by the illusion that help is never far away and who value the ability to read a map, light a fire, and otherwise live simply in the wilderness. They will understand that radio or cell phone use for non-emergency communication is a choice—we can turn it on or leave it in our pack. For these leaders, a helicopter—while an asset in rescue—is ultimately an unwanted intrusion into wilderness.

Many will fail the test and call home or the office on the cell phone, and thus never really experience the wilderness. Others, by calling for advice, assistance, rescue, or directions, will demonstrate a failure to plan, research, and prepare. Most, I hope, will succeed and will utilize technology to be better leaders and risk managers and will retain the sense of remoteness, solitude, simplicity, and self-reliance they value in their wilderness experience.

THIRD PARTY CONTRACTOR INFORMATION

Association for Experiential Education

Use of Vendors

Draft

Only services directly conducted by the Organization are accredited. Note that program/services announcements/brochures must clearly indicate that such services are by independent contract and are not accredited.

Services that are provided to an Organization's clientele through an independent contract are neither reviewed nor accredited; however, the policies and practices related to such contracting will be reviewed, as provided in the AEE Policy and Procedures manual. Assessment of policy and procedures areas related to contracting that may be covered in an accreditation review, but may not be limited to, include:

1. Assessment of the independent contractor's ability to follow the appropriate standards in the field. This would mean that the Organization would find the standards of the independent contractor matching or exceeding standards expected through an AEE accreditation process.
2. Demonstration that the independent contractor can meet the Organization's mission and objectives.
3. The independent contractor possesses appropriate risk management plans and procedures.
4. Evidence of an annual report, board of directors, history of operations.
5. The provision for and checking of references provided by the independent contractor with whom an Organization can speak directly.
6. The independent contractor possesses a policies and procedures manual.
7. Appropriate evidence of staff qualifications (e.g., individual resumes of staff provided) are available and provide evidence of quality services.
8. Examination of incident reports on any serious injuries and all fatalities in the past three years.
9. Proof of appropriate levels of insurance.
10. Copies of necessary licenses and permits.
11. Copy of the vendor's latest internal and/or external safety review.
12. Evidence of any affiliation, accredited status, or certification.

As a reminder, it is important for programs to note that when an Organization contracts out services to another organization, the operation of those services is covered as if they were conducting the program for their own individual clientele.

The Biking Expedition

Third-Party Contractor Agreement

The Biking Expedition seeks to provide quality educational services for our students. We wish to verify that we are working with contractors that have similar ethics and standards. Please carefully read our contractor agreement. We thank you in advance for assisting us in providing quality programs for youths.

1. This program will support and uphold the 4 principles of TBE:

   Group and community responsibility

   Respect yourself, others, and the environment

   Open and honest attitude toward people, places, and things

   Willingness to do your best at all times

2. This program has policies and procedures that are in place to reasonably ensure that:
   - its employees are capable of performing the duties of the contracted activity
   - supervision is adequate for the activity
   - emergency protocols are in place and understood
   - equipment is monitored and safe for the contracted activity
   - the impact of the activity is managed to reduce harm to the environment in which we are traveling
3. This program will support the educational focus of TBE by structuring time for reflection.
4. Proof of insurance will be sent to TBE with this contract.
5. Waivers and/or Release of Liability forms will be sent to TBE in a timely manner for students and parents to consider and sign.
6. This program agrees to indemnify The Biking Expedition and Earth Expeditions Inc. from all claims arising out of this contracted service.

The signing of this document is a statement that this program meets the above conditions in whole, fully understands the nature of the agreement, and accepts the provisions above.

_____

Name of Program

_____

Signature title date

Send to: The Biking Expedition
PO Box 547
Henniker, NH 03242

Contractor Questionnaire

Company Name/Contact_____

Address _____

Phone/Fax _____

1. **General**

   Have you been in business for at least two consecutive seasons?

   Have you worked with student groups in the past?

   Do you carry liability insurance? (Needs to be 1 million, equivalent to or greater than TBE's

   (Send TBE a copy of insurance information.)

   Do you have appropriate permits for area in use?

2. **Environmental**

   Do you have an environmental impact policy? (it needs to be congruent to TBE's.)

3. **Human Understanding**

   Does your organization promote pro-social values?

   " " " educate students or leave opportunity for education on trips?

   Does the pay of your employees meet or exceed area and industry standards?

4. **Conducting the Activity**

   Will a trained staff member be with the group for the duration of the activity?

   Is your company accredited by any major governing organization? (AMGA, ACA, ACCT, AEE)

   If not, does your organization meet the accreditation standards of AEE?

5. **Emergency Procedures**

   Does your staff hold current certifications in first aid and other relevant training? What, if any, specialized training does your company provide for its employees? Do you have evacuation and emergency procedures? (Send a copy of evac. and emergency procedure to us.)

   What is the length of your season?

   How many accidents occurred on your program last year?

6. **Equipment**

   What is your policy on monitoring equipment safety? (i.e., wear and tear)

   How often is the equipment checked?

   What equipment is provided?

   What will we be responsible for providing?

7. **Nourishment**

   Do you provide meals?

   If so, what is provided?

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